This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

HC 4BWZ P

3. 26. 14.

·FROM·THE·FUND·BEQUEATHED·BY·
ROBERT·CHARLES·BILLINGS
·1819·
·1899·
TO THE
·BOSTON·MEDICAL·LIBRARY·
Nº 8 THE FENWAY

AN ATLAS
OF
HUMAN ANATOMY
FOR STUDENTS AND PHYSICIANS

BY
CARL TOLDT, M.D.
PROFESSOR OF ANATOMY IN THE UNIVERSITY OF VIENNA
ASSISTED BY
PROFESSOR ALOIS DALLA ROSA, M.D.

Translated from the Third German Edition and adapted to English and American and International Terminology
BY
M. EDEN PAUL, M.D. BRUX., M.R.C.S., L.R.C.P.

THIRD SECTION
D. MYOLOGY
(FIGURES 490 TO 640 AND INDEX)

NEW YORK
REBMAN COMPANY
10, WEST 23RD STREET, CORNER OF FIFTH AVENUE
LONDON AGENTS: REBMAN, LIMITED
129, SHAFTESBURY AVENUE, CAMBRIDGE CIRCUS, W.C.
1904

4970.
10/18/1905.

GENERAL TABLE OF CONTENTS

Part I.

A. **The Regions of the Human Body** (Figs. 1 to 5).
B. **Osteology** (Figs. 6 to 377). With Index.
Price, bound in cloth, **$2.50** net. ☞ [*Ready.*

Part II.

C. **Arthrology** (Figs. 378 to 489). With Index.
Price, bound in cloth, **$1.75** net. ☞ [*Ready.*

Part III.

D. **Myology,** with a Supplement on the Anatomy of Hernia (Figs. 490 to 640). With Index.
Price, bound in cloth, **$2.50** net. ☞ [*Ready.*

Part IV.

E. **Splanchnology** (Figs. 641 to 932). With Index.
Price, bound in cloth, **$2.75** net.

BOSTON MEDICAL
OCT 18 1905
LIBRARY

Part V.

F. **Angeiology** (Figs. 933 to 1,123). With Index.
Price, bound in cloth, **$3.75** net.

Part VI.

G. **Neurology** (Figs. 1,124 to 1,333).
H. **The Organs of the Senses** (Figs. 1,334 to 1,505). With Index.
Price, bound in cloth, **$4.75** net.

The six demy 4to. volumes complete, bound in cloth, **$18.**

All rights reserved.
Entered at Stationers' Hall.

MYOLOGIA

MYOLOGY

MYOLOGY—GENERAL CONSIDERATIONS

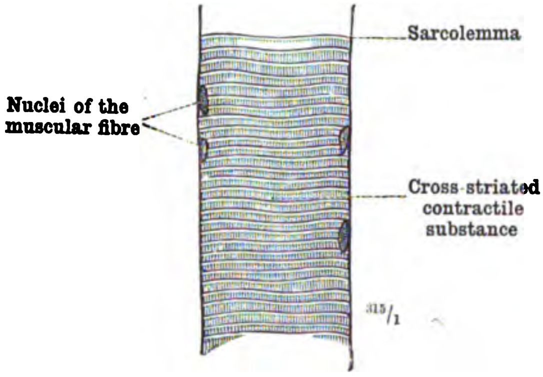

Sarcolemma
Nuclei of the muscular fibre
Cross-striated contractile substance
315/1

FIG. 490.—A PORTION OF AN ISOLATED CROSS-STRIATED MUSCULAR FIBRE.

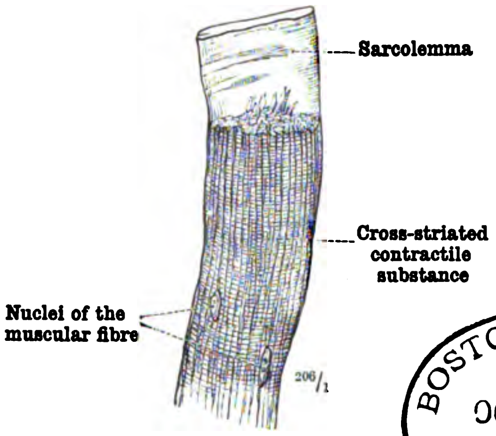

Sarcolemma
Cross-striated contractile substance
Nuclei of the muscular fibre
206/1

FIG. 491.—A PORTION OF AN ISOLATED CROSS-STRIATED MUSCULAR FIBRE IN WHICH FOR A SHORT DISTANCE THE CONTRACTILE SUBSTANCE HAS BEEN REMOVED FROM THE SARCOLEMMA.

BOSTON MEDICAL
OCT 1915

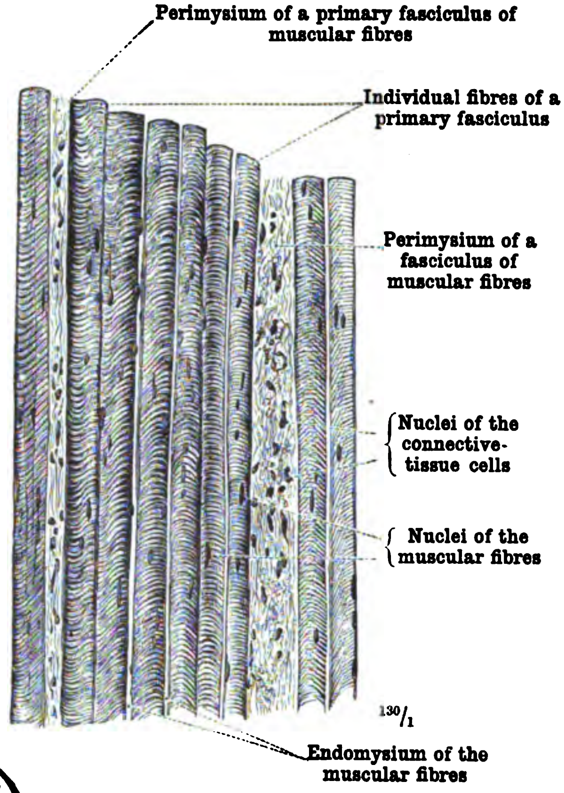

Perimysium of a primary fasciculus of muscular fibres
Individual fibres of a primary fasciculus
Perimysium of a fasciculus of muscular fibres
Nuclei of the connective-tissue cells
Nuclei of the muscular fibres
130/1
Endomysium of the muscular fibres

FIG. 492.—FASCICULUS OF MUSCULAR FIBRES FROM A LONGITUDINAL SECTION OF THE HUMAN SARTORIUS MUSCLE, HARDENED IN PICRIC ACID SOLUTION.

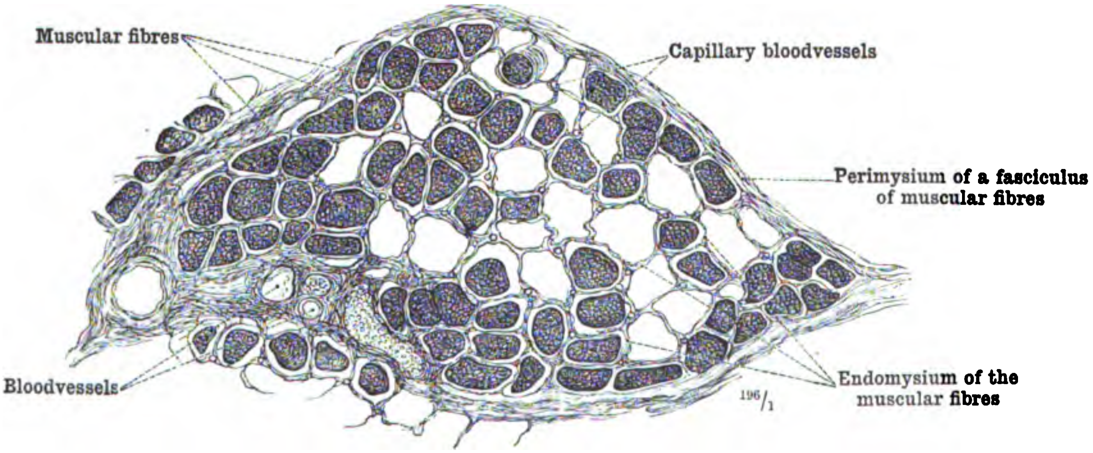

Muscular fibres
Capillary bloodvessels
Perimysium of a fasciculus of muscular fibres
Bloodvessels
196/1
Endomysium of the muscular fibres

FIG. 493.—FASCICULI OF MUSCULAR FIBRES IN TRANSVERSE SECTION. SOME OF THE FASCICULI HAVE FALLEN OUT OF THE SECTION. IN THE PERIMYSIUM OF THE FASCICULI NUMEROUS CAPILLARY BLOODVESSELS ARE SEEN IN TRANSVERSE SECTION. (FROM A TRANSVERSE SECTION OF THE HUMAN SARTORIUS MUSCLE, HARDENED IN PICRIC ACID SOLUTION AND ALCOHOL.)

Elementary Constituents and Structure of Muscle.

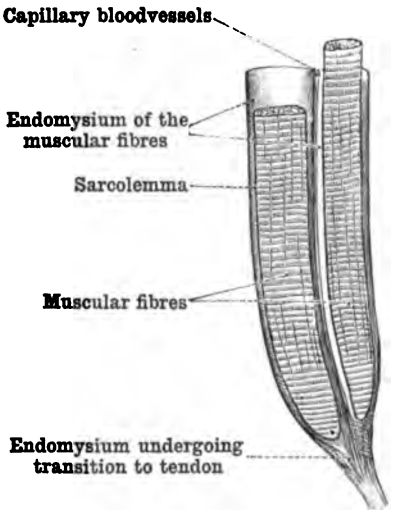

Capillary bloodvessels
Endomysium of the muscular fibres
Sarcolemma
Muscular fibres
Endomysium undergoing transition to tendon

FIG. 494.—DIAGRAMMATIC REPRESENTATION OF THE RELATION OF THE MUSCULAR FIBRES TO THE ENDOMYSIUM.

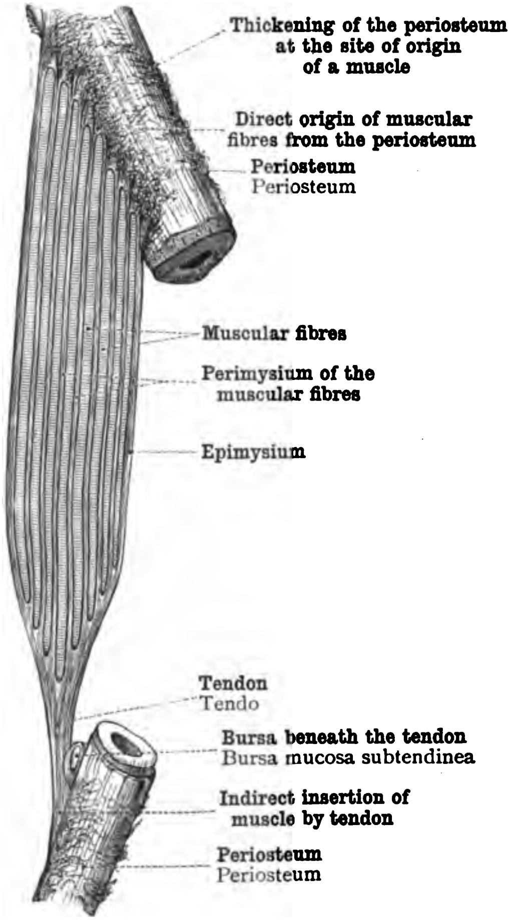

Thickening of the periosteum at the site of origin of a muscle
Direct origin of muscular fibres from the periosteum
Periosteum
Periosteum
Muscular fibres
Perimysium of the muscular fibres
Epimysium
Tendon
Tendo
Bursa beneath the tendon
Bursa mucosa subtendinea
Indirect insertion of muscle by tendon
Periosteum
Periosteum

FIG. 495.—DIAGRAMMATIC REPRESENTATION OF THE RELATION OF THE PERIMYSIUM TO THE ORIGIN AND THE INSERTION OF THE MUSCLE (THE INSERTION IN THIS CASE BEING BY TENDON).

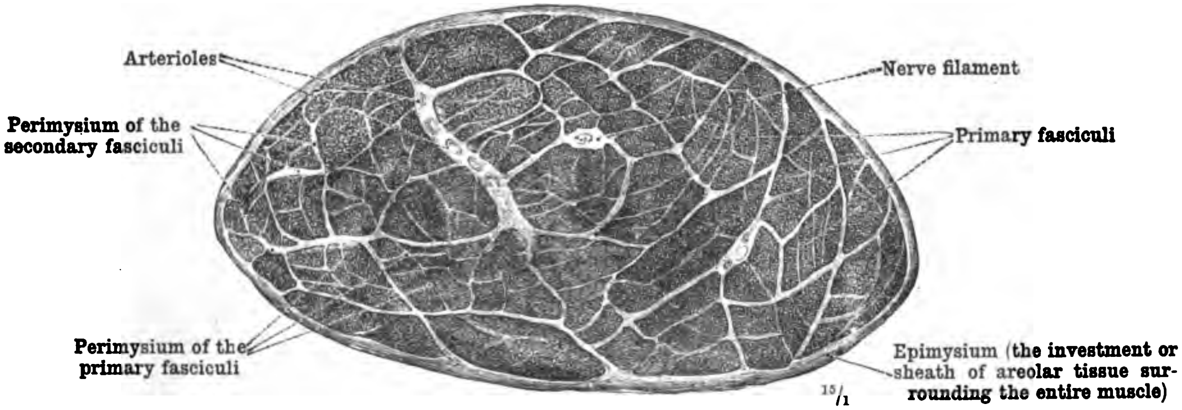

Arterioles
Nerve filament
Perimysium of the secondary fasciculi
Primary fasciculi
Perimysium of the primary fasciculi
Epimysium (the investment or sheath of areolar tissue surrounding the entire muscle)
15/1

FIG. 496.—TRANSVERSE SECTION THROUGH THE SARTORIUS MUSCLE OF A NEW-BORN INFANT, SHOWING THE PRIMARY AND SECONDARY FASCICULI OF MUSCULAR FIBRES.

Structure of Muscle.

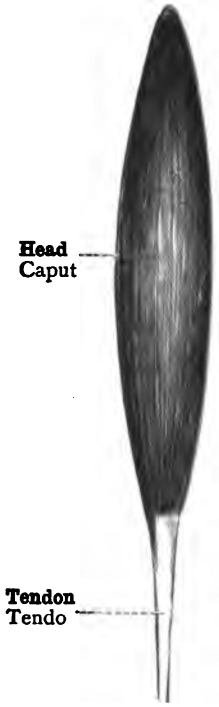


FIG. 497.—MUSCULUS FUSIFORMIS; FUSIFORM MUSCLE.

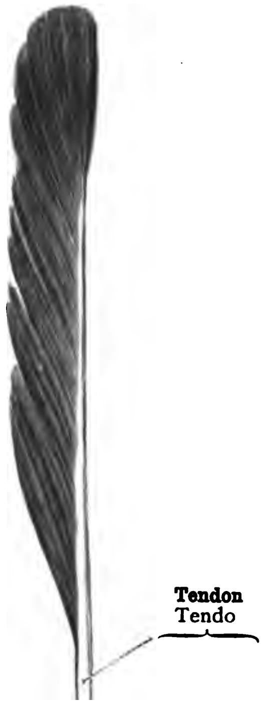


FIG. 498.—MUSCULUS UNIPENNATUS; PENNIFORM MUSCLE.

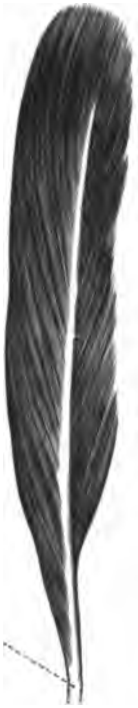


FIG. 499.—MUSCULUS BIPENNATUS; BIPENNIFORM MUSCLE.

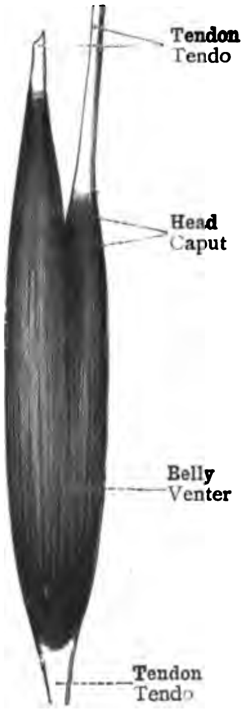


FIG. 500.—MUSCULUS BICEPS; DOUBLE-HEADED MUSCLE.

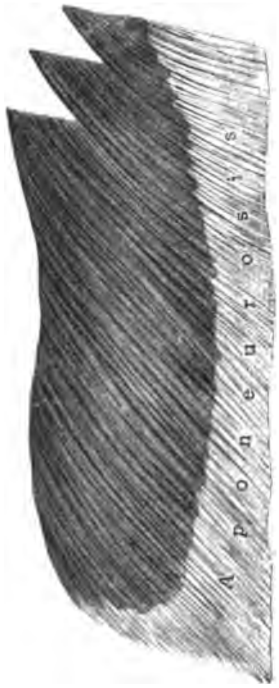


FIG. 501.—BROAD MUSCLE.

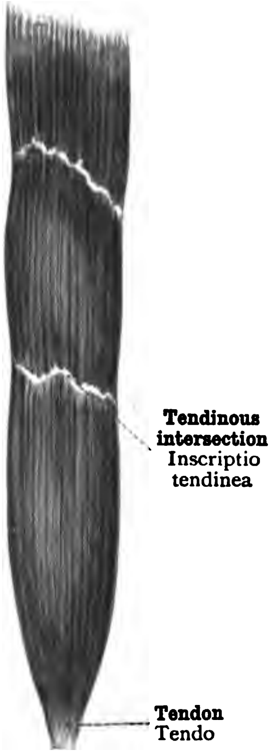


FIG. 502.—STRAP-SHAPED MUSCLE.

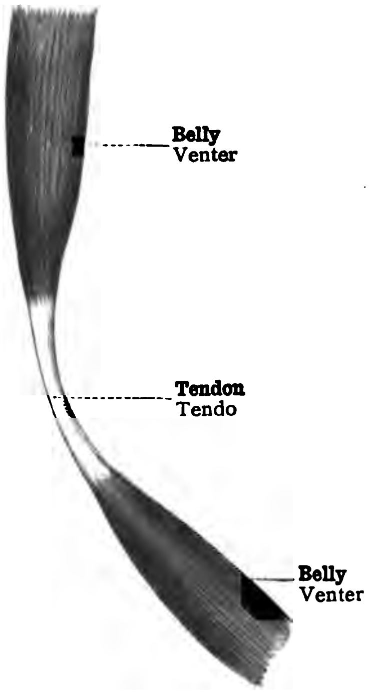


FIG. 503.—MUSCULUS BIVENTER; DIGASTRIC MUSCLE.

The Principal Muscular Forms.

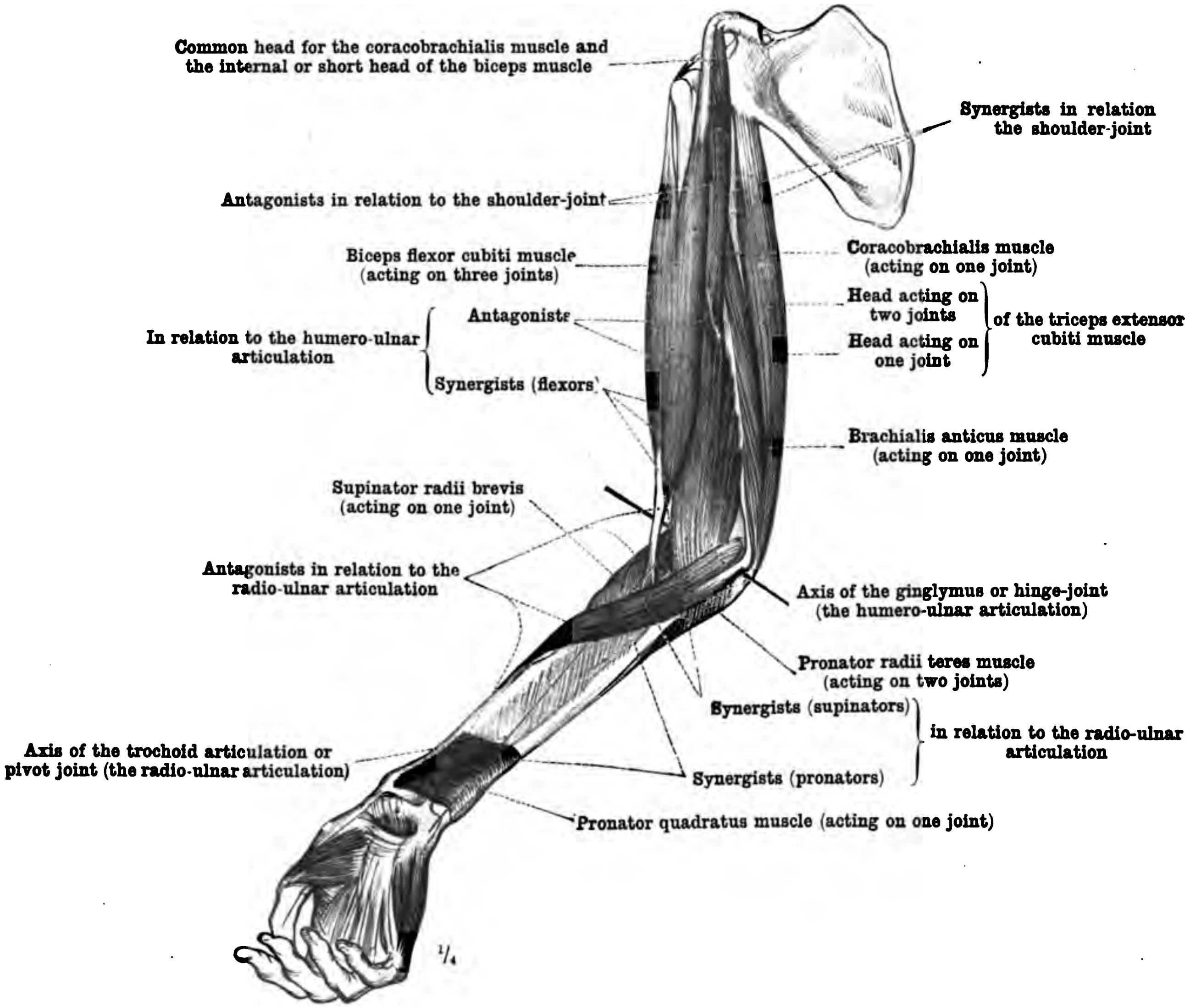

Common head for the coracobrachialis muscle and the internal or short head of the biceps muscle
Synergists in relation the shoulder-joint
Antagonists in relation to the shoulder-joint
Biceps flexor cubiti muscle (acting on three joints)
Coracobrachialis muscle (acting on one joint)
Head acting on two joints
Head acting on one joint
of the triceps extensor cubiti muscle
In relation to the humero-ulnar articulation
Antagonists
Synergists (flexors)
Brachialis anticus muscle (acting on one joint)
Supinator radii brevis (acting on one joint)
Antagonists in relation to the radio-ulnar articulation
Axis of the ginglymus or hinge-joint (the humero-ulnar articulation)
Pronator radii teres muscle (acting on two joints)
Synergists (supinators)
in relation to the radio-ulnar articulation
Synergists (pronators)
Axis of the trochoid articulation or pivot joint (the radio-ulnar articulation)
Pronator quadratus muscle (acting on one joint)
1/4

FIG. 504.—THE MUSCLES OF THE ARM AND THE PRONATOR AND SUPINATOR MUSCLES OF THE FOREARM AS EXAMPLES OF THE RELATION OF VARIOUS MUSCLES TO ONE OR SEVERAL JOINTS, AND ALSO OF THE SYNERGISTIC OR ANTAGONISTIC ACTION OF MUSCLES IN RELATION TO A PARTICULAR JOINT.

Relation of the Muscles to the Joints.

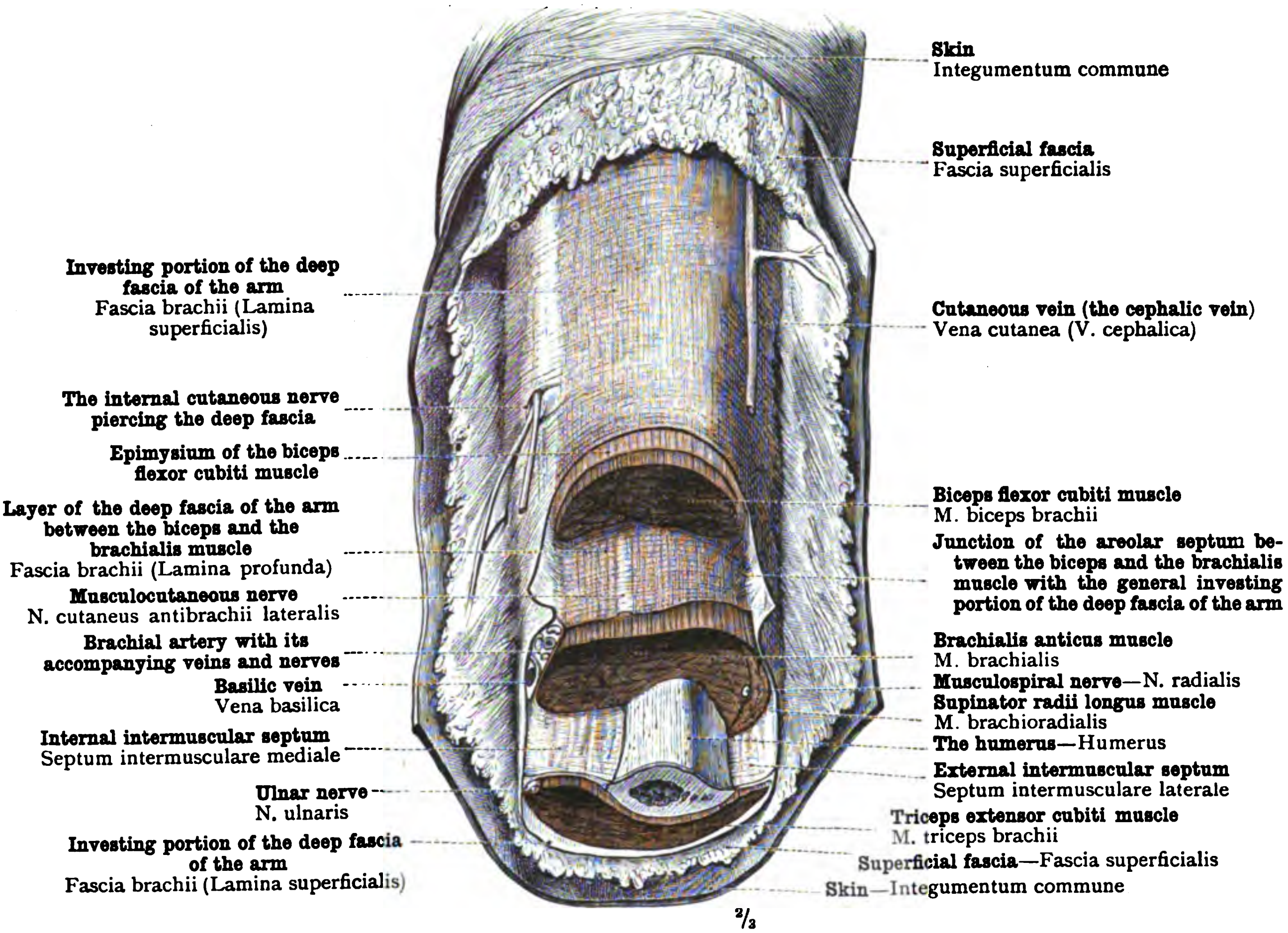

Skin
Integumentum commune
Superficial fascia
Fascia superficialis
Investing portion of the deep fascia of the arm
Fascia brachii (Lamina superficialis)
Cutaneous vein (the cephalic vein)
Vena cutanea (V. cephalica)
The internal cutaneous nerve piercing the deep fascia
Epimysium of the biceps flexor cubiti muscle
Layer of the deep fascia of the arm between the biceps and the brachialis muscle
Fascia brachii (Lamina profunda)
Biceps flexor cubiti muscle
M. biceps brachii
Junction of the areolar septum between the biceps and the brachialis muscle with the general investing portion of the deep fascia of the arm
Musculocutaneous nerve
N. cutaneus antibrachii lateralis
Brachial artery with its accompanying veins and nerves
Brachialis anticus muscle
M. brachialis
Basilic vein
Vena basilica
Musculospiral nerve—N. radialis
Supinator radii longus muscle
M. brachioradialis
Internal intermuscular septum
Septum intermusculare mediale
The humerus—Humerus
External intermuscular septum
Septum intermusculare laterale
Ulnar nerve
N. ulnaris
Triceps extensor cubiti muscle
M. triceps brachii
Investing portion of the deep fascia of the arm
Fascia brachii (Lamina superficialis)
Superficial fascia—Fascia superficialis
Skin—Integumentum commune
²/₃

FIG. 505.—APONEUROSIS OR FASCIA. THE RELATION OF THE DEEP FASCIA TO THE VARIOUS GROUPS OF MUSCLES AND TO THE BONE. THE INTERMUSCULAR SEPTA. THE SUPERFICIAL FASCIA. (FASCIA OF THE RIGHT ARM.)

The individual muscles with their investing fascia in the lower third of the arm have been divided transversely at varying levels.

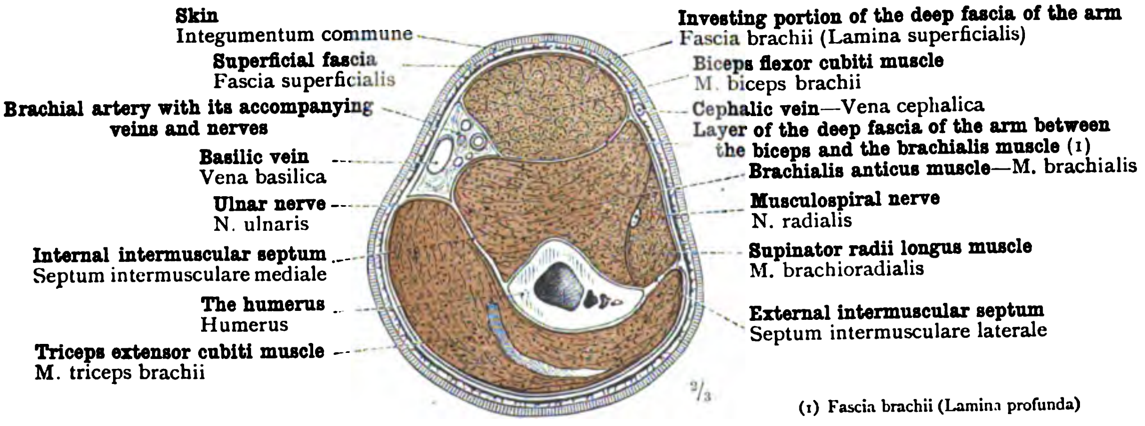

Skin
Integumentum commune
Investing portion of the deep fascia of the arm
Fascia brachii (Lamina superficialis)
Superficial fascia
Fascia superficialis
Biceps flexor cubiti muscle
M. biceps brachii
Brachial artery with its accompanying veins and nerves
Cephalic vein—Vena cephalica
Layer of the deep fascia of the arm between the biceps and the brachialis muscle (1)
Basilic vein
Vena basilica
Brachialis anticus muscle—M. brachialis
Ulnar nerve
N. ulnaris
Musculospiral nerve
N. radialis
Internal intermuscular septum
Septum intermusculare mediale
Supinator radii longus muscle
M. brachioradialis
The humerus
Humerus
External intermuscular septum
Septum intermusculare laterale
Triceps extensor cubiti muscle
M. triceps brachii
²/₃
(1) Fascia brachii (Lamina profunda)

FIG. 506.—THE GROUPING OF THE MUSCLES OF THE ARM, AND THE RELATION OF THESE MUSCLES TO THE DEEP FASCIA. (TRANSVERSE SECTION THROUGH THE RIGHT UPPER ARM IN THE NEIGHBOURHOOD OF ITS DISTAL EXTREMITY; PROXIMAL CUT SURFACE. SEMI-DIAGRAMMATIC.)

Aponeurosis or Fascia.

MUSCULI TRUNCI

THE MUSCLES OF THE TRUNK

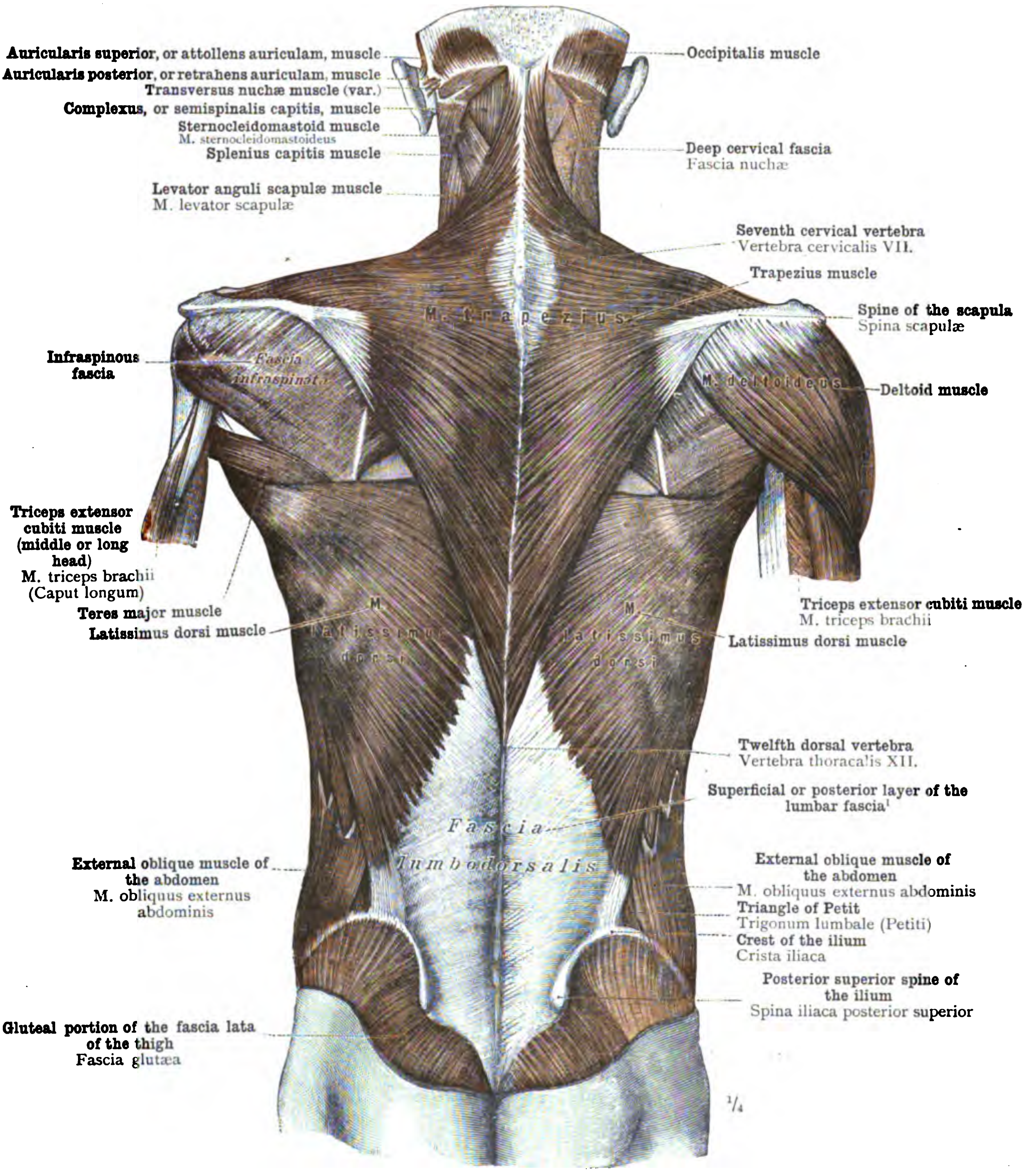

Auricularis superior, or attollens auriculam, muscle
Auricularis posterior, or retrahens auriculam, muscle
Transversus nuchæ muscle (var.)
Complexus, or semispinalis capitis, muscle
Sternocleidomastoid muscle
M. sternocleidomastoideus
Splenius capitis muscle
Levator anguli scapulæ muscle
M. levator scapulæ
Infraspinous fascia
Fascia infraspinata
Triceps extensor cubiti muscle (middle or long head)
M. triceps brachii (Caput longum)
Teres major muscle
Latissimus dorsi muscle
External oblique muscle of the abdomen
M. obliquus externus abdominis
Gluteal portion of the fascia lata of the thigh
Fascia glutæa
Occipitalis muscle
Deep cervical fascia
Fascia nuchæ
Seventh cervical vertebra
Vertebra cervicalis VII.
Trapezius muscle
M. trapezius
Spine of the scapula
Spina scapulæ
M. deltoideus
Deltoid muscle
Triceps extensor cubiti muscle
M. triceps brachii
M. latissimus dorsi
M. latissimus dorsi
Latissimus dorsi muscle
Twelfth dorsal vertebra
Vertebra thoracalis XII.
Superficial or posterior layer of the lumbar fascia[1]
Fascia lumbodorsalis
External oblique muscle of the abdomen
M. obliquus externus abdominis
Triangle of Petit
Trigonum lumbale (Petiti)
Crest of the ilium
Crista iliaca
Posterior superior spine of the ilium
Spina iliaca posterior superior
1/4

FIG. 507.—FIRST (SUPERFICIAL) LAYER OF THE MUSCLES OF THE BACK (WIDE MUSCLES OF THE BACK): THE TRAPEZIUS MUSCLE (CUCULLARIS); THE LATISSIMUS DORSI MUSCLE. SUPERFICIAL OR POSTERIOR LAYER OF THE LUMBAR FASCIA.

Musculi dorsi—Muscles of the back.

---

[1] See notes to pp. 267 and 285 for an account of the different portions of the lumbar fascia.

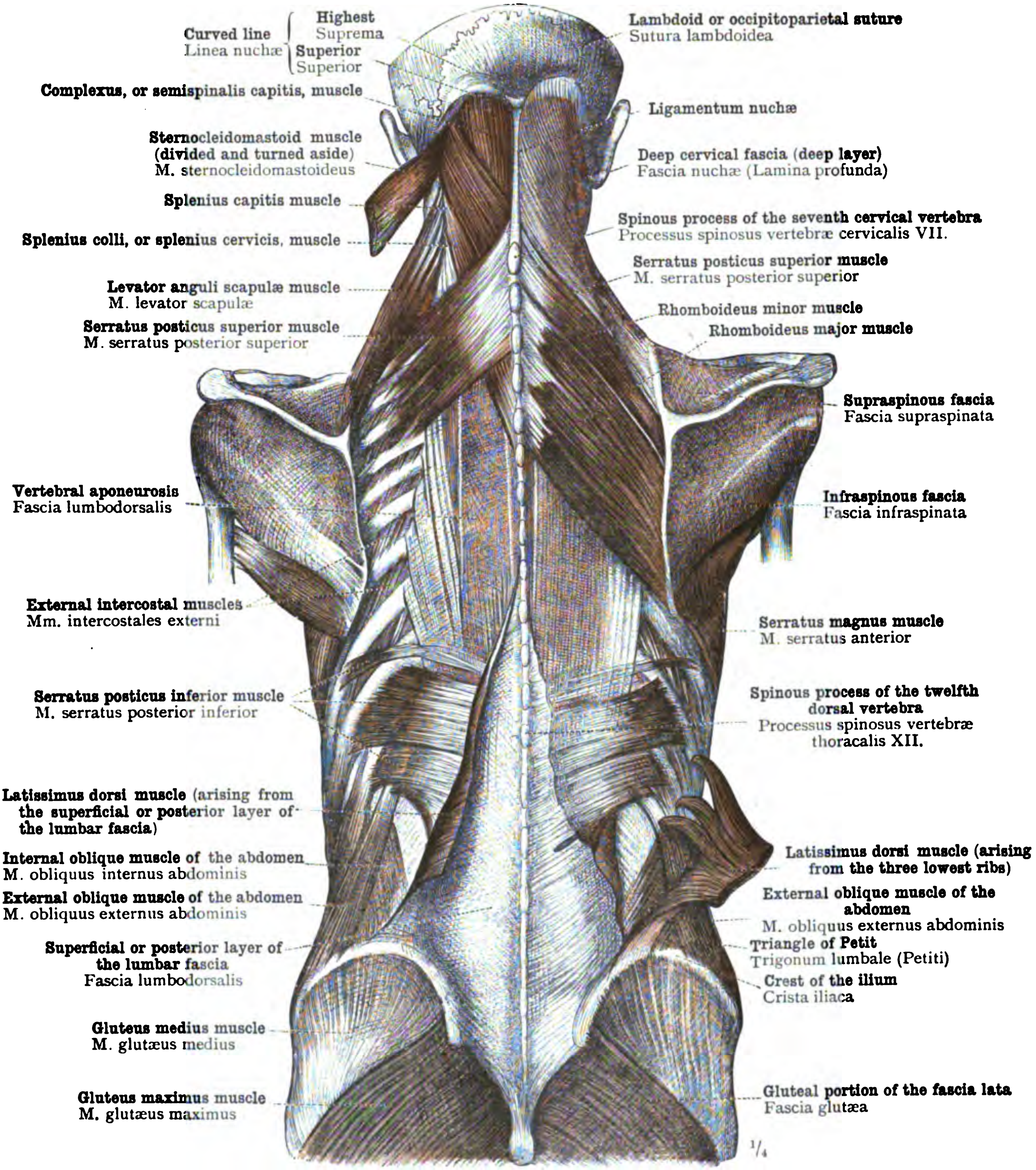

Curved line
Linea nuchæ
Highest
Suprema
Superior
Superior
Complexus, or semispinalis capitis, muscle
Sternocleidomastoid muscle (divided and turned aside)
M. sternocleidomastoideus
Splenius capitis muscle
Splenius colli, or splenius cervicis, muscle
Levator anguli scapulæ muscle
M. levator scapulæ
Serratus posticus superior muscle
M. serratus posterior superior
Vertebral aponeurosis
Fascia lumbodorsalis
External intercostal muscles
Mm. intercostales externi
Serratus posticus inferior muscle
M. serratus posterior inferior
Latissimus dorsi muscle (arising from the superficial or posterior layer of the lumbar fascia)
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
External oblique muscle of the abdomen
M. obliquus externus abdominis
Superficial or posterior layer of the lumbar fascia
Fascia lumbodorsalis
Gluteus medius muscle
M. glutæus medius
Gluteus maximus muscle
M. glutæus maximus
Lambdoid or occipitoparietal suture
Sutura lambdoidea
Ligamentum nuchæ
Deep cervical fascia (deep layer)
Fascia nuchæ (Lamina profunda)
Spinous process of the seventh cervical vertebra
Processus spinosus vertebræ cervicalis VII.
Serratus posticus superior muscle
M. serratus posterior superior
Rhomboideus minor muscle
Rhomboideus major muscle
Supraspinous fascia
Fascia supraspinata
Infraspinous fascia
Fascia infraspinata
Serratus magnus muscle
M. serratus anterior
Spinous process of the twelfth dorsal vertebra
Processus spinosus vertebræ thoracalis XII.
Latissimus dorsi muscle (arising from the three lowest ribs)
External oblique muscle of the abdomen
M. obliquus externus abdominis
Triangle of Petit
Trigonum lumbale (Petiti)
Crest of the ilium
Crista iliaca
Gluteal portion of the fascia lata
Fascia glutæa
¹/₄

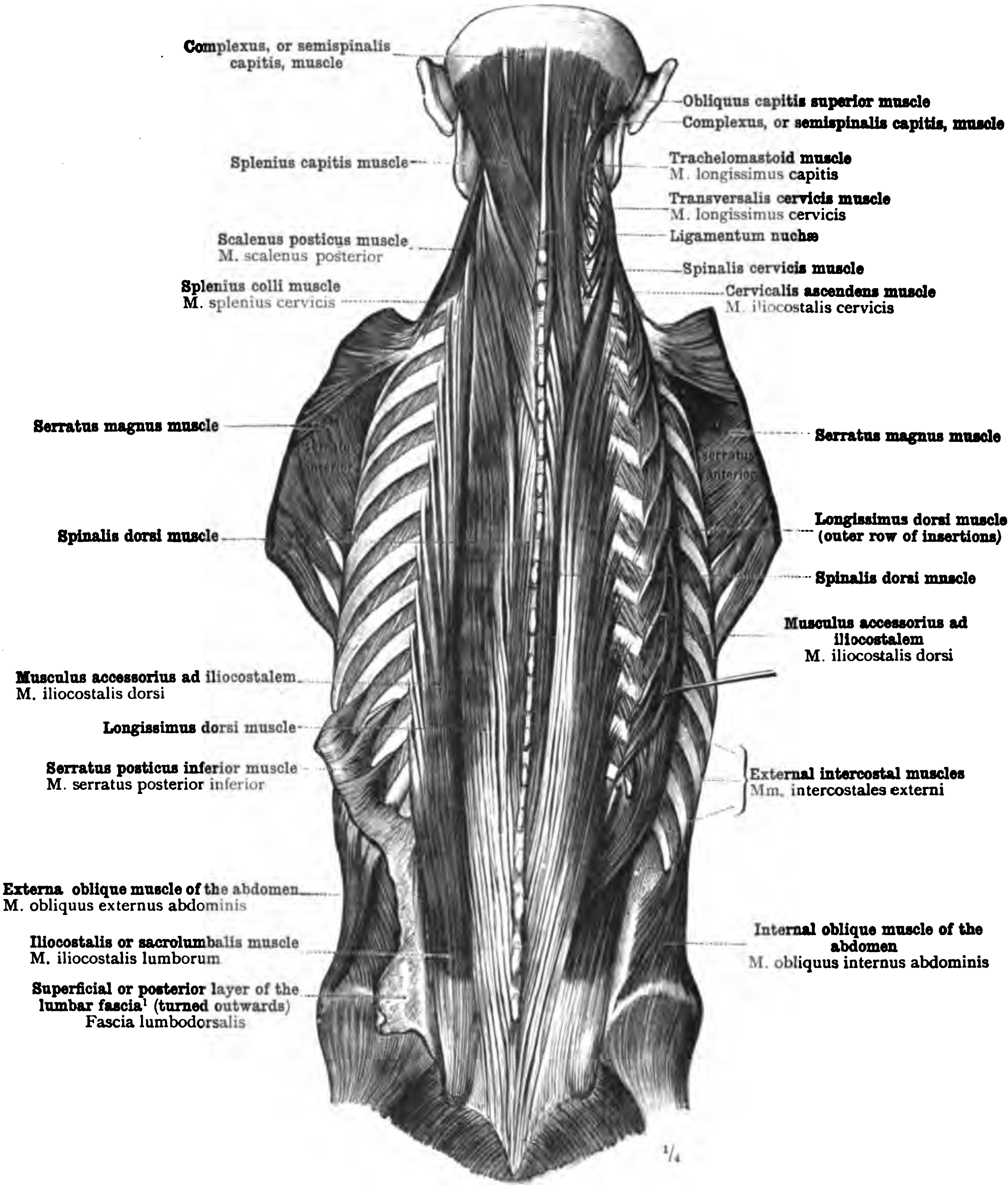
Fig. 508.—Second Layer of the Muscles of the Back (Wide Muscles of the Back), shown by the Removal of the Latissimus Dorsi and the Trapezius Muscles; on the Left Side, the Rhomboideus Major and Rhomboideus Minor Muscles have also been removed.

The muscles of the second layer are: Rhomboideus major, rhomboideus minor, serratus posticus superior, serratus posticus inferior, and levator anguli scapulæ. The superficial or posterior layer of the lumbar fascia,[1] by means of which the latissimus dorsi and the serratus posticus inferior muscles are attached to the spines of the vertebræ, and the vertebral aponeurosis, are also shown.

---

[1] The name of *lumbar fascia* is by some anatomists restricted to the deeper layers of this structure (see note to p. 285), and what we here call the *superficial or posterior layer of the lumbar fascia* is in that case either regarded as the *lower portion of the vertebral aponeurosis* (with which it is continuous), or else is termed the *aponeurosis of the latissimus dorsi muscle*.—Tr.

Musculi dorsi—Muscles of the back.

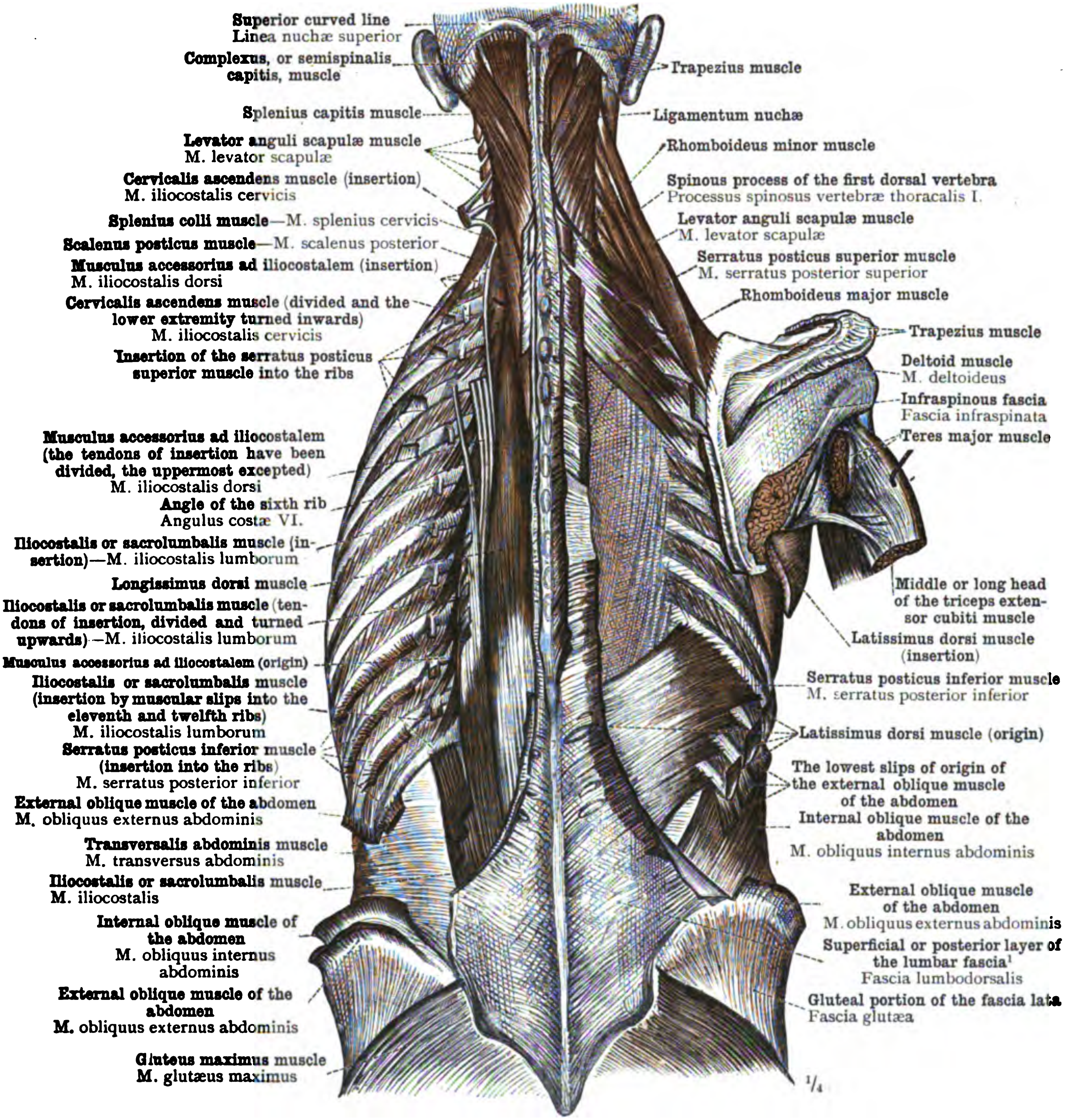

Complexus, or semispinalis capitis, muscle
Obliquus capitis superior muscle
Complexus, or semispinalis capitis, muscle
Splenius capitis muscle
Trachelomastoid muscle
M. longissimus capitis
Transversalis cervicis muscle
M. longissimus cervicis
Ligamentum nuchæ
Scalenus posticus muscle
M. scalenus posterior
Spinalis cervicis muscle
Splenius colli muscle
M. splenius cervicis
Cervicalis ascendens muscle
M. iliocostalis cervicis
Serratus magnus muscle
Serratus anterior
Serratus magnus muscle
Serratus anterior
Longissimus dorsi muscle (outer row of insertions)
Spinalis dorsi muscle
Spinalis dorsi muscle
Musculus accessorius ad iliocostalem
M. iliocostalis dorsi
Musculus accessorius ad iliocostalem
M. iliocostalis dorsi
Longissimus dorsi muscle
Serratus posticus inferior muscle
M. serratus posterior inferior
External intercostal muscles
Mm. intercostales externi
Externa oblique muscle of the abdomen
M. obliquus externus abdominis
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
Iliocostalis or sacrolumbalis muscle
M. iliocostalis lumborum
Superficial or posterior layer of the lumbar fascia[1] (turned outwards)
Fascia lumbodorsalis
$^1/_4$

[1] See note to p. 267.

FIG. 509.—THIRD LAYER OF THE MUSCLES OF THE BACK (LONG MUSCLES OF THE BACK), SHOWN BY THE REMOVAL OF THE FIRST AND SECOND LAYERS OF MUSCLES AND OF THE SUPERFICIAL OR POSTERIOR LAYER OF THE LUMBAR FASCIA AND THE VERTEBRAL APONEUROSIS; ON THE RIGHT SIDE THE MUSCULUS ACCESSORIUS AD ILIOCOSTALEM HAS BEEN DRAWN OUTWARDS.

The muscles of the third layer are: The erector spinæ, consisting of the iliocostalis (sacrolumbalis) and the longissimus dorsi, with their prolongations upwards—accessorius, spinalis, and splenius muscles.

Musculi dorsi—Muscles of the back.


Superior curved line
Linea nuchæ superior
Complexus, or semispinalis capitis, muscle
Splenius capitis muscle
Levator anguli scapulæ muscle
M. levator scapulæ
Cervicalis ascendens muscle (insertion)
M. iliocostalis cervicis
Splenius colli muscle—M. splenius cervicis
Scalenus posticus muscle—M. scalenus posterior
Musculus accessorius ad iliocostalem (insertion)
M. iliocostalis dorsi
Cervicalis ascendens muscle (divided and the lower extremity turned inwards)
M. iliocostalis cervicis
Insertion of the serratus posticus superior muscle into the ribs
Musculus accessorius ad iliocostalem (the tendons of insertion have been divided, the uppermost excepted)
M. iliocostalis dorsi
Angle of the sixth rib
Angulus costæ VI.
Iliocostalis or sacrolumbalis muscle (insertion)—M. iliocostalis lumborum
Longissimus dorsi muscle
Iliocostalis or sacrolumbalis muscle (tendons of insertion, divided and turned upwards)—M. iliocostalis lumborum
Musculus accessorius ad iliocostalem (origin)
Iliocostalis or sacrolumbalis muscle (insertion by muscular slips into the eleventh and twelfth ribs)
M. iliocostalis lumborum
Serratus posticus inferior muscle (insertion into the ribs)
M. serratus posterior inferior
External oblique muscle of the abdomen
M. obliquus externus abdominis
Transversalis abdominis muscle
M. transversus abdominis
Iliocostalis or sacrolumbalis muscle
M. iliocostalis
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
External oblique muscle of the abdomen
M. obliquus externus abdominis
Gluteus maximus muscle
M. glutæus maximus
Trapezius muscle
Ligamentum nuchæ
Rhomboideus minor muscle
Spinous process of the first dorsal vertebra
Processus spinosus vertebræ thoracalis I.
Levator anguli scapulæ muscle
M. levator scapulæ
Serratus posticus superior muscle
M. serratus posterior superior
Rhomboideus major muscle
Trapezius muscle
Deltoid muscle
M. deltoideus
Infraspinous fascia
Fascia infraspinata
Teres major muscle
Middle or long head of the triceps extensor cubiti muscle
Latissimus dorsi muscle (insertion)
Serratus posticus inferior muscle
M. serratus posterior inferior
Latissimus dorsi muscle (origin)
The lowest slips of origin of the external oblique muscle of the abdomen
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
External oblique muscle of the abdomen
M. obliquus externus abdominis
Superficial or posterior layer of the lumbar fascia[1]
Fascia lumbodorsalis
Gluteal portion of the fascia lata
Fascia glutæa
1/4

---

[1] See note to p. 267.

FIG. 510.—THE DIVISIONS OF THE ILIOCOSTALIS OR SACROLUMBALIS MUSCLE AND ITS ACCESSORY SLIPS OF ORIGIN, SHOWN BY THE REMOVAL OF PORTIONS OF THE MUSCLE. THE LEVATOR ANGULI SCAPULÆ, THE SPLENIUS CAPITIS, AND THE SPLENIUS COLLI MUSCLES. THE SERRATUS POSTICUS SUPERIOR AND THE SERRATUS POSTICUS INFERIOR MUSCLES.

The last-named muscle has, in respect of the width of its slips of insertion, a very different appearance from that shown in Fig. 508.

Musculi dorsi—Muscles of the back.

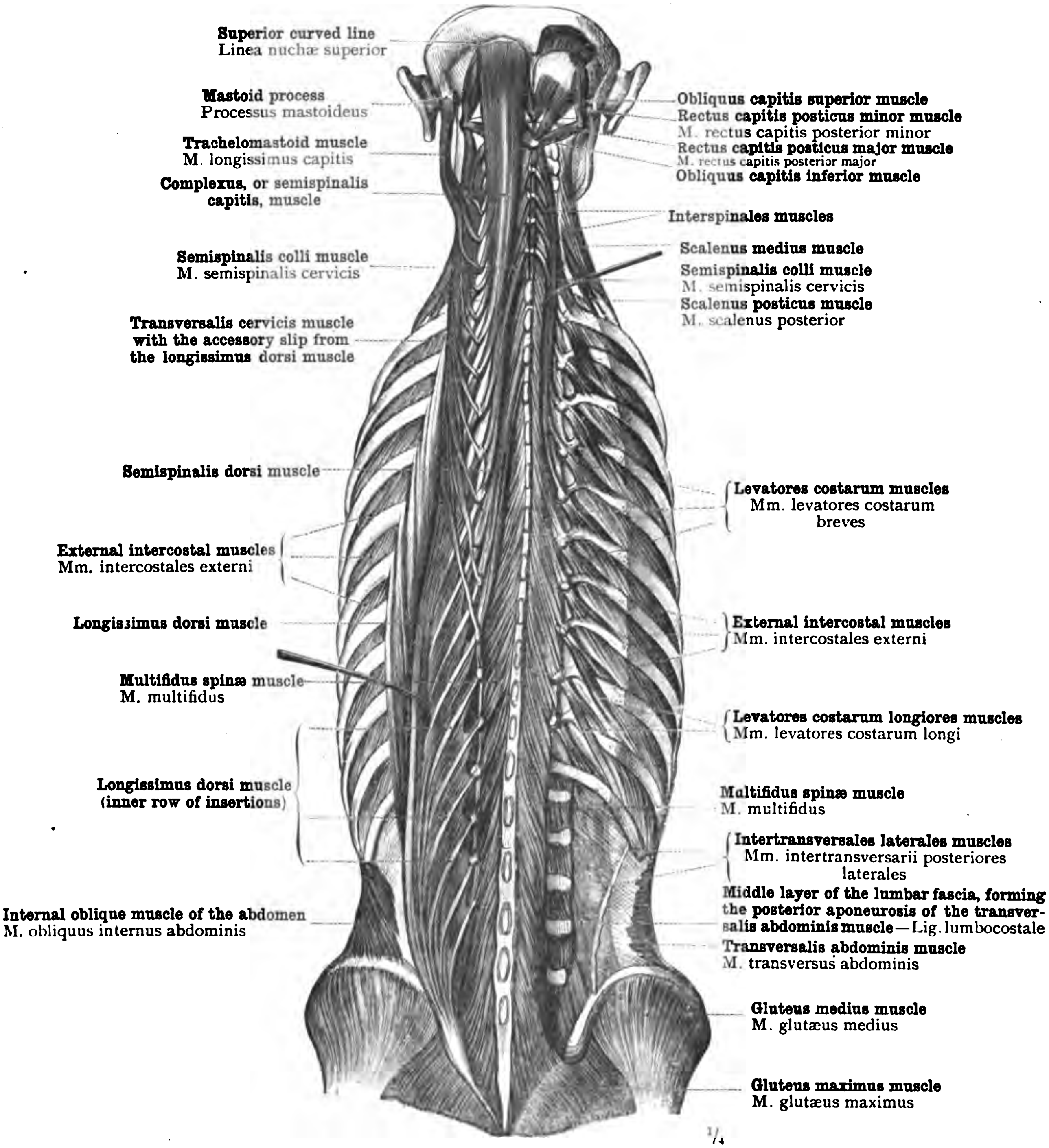

Superior curved line
Linea nuchæ superior
Mastoid process
Processus mastoideus
Trachelomastoid muscle
M. longissimus capitis
Complexus, or semispinalis capitis, muscle
Semispinalis colli muscle
M. semispinalis cervicis
Transversalis cervicis muscle with the accessory slip from the longissimus dorsi muscle
Semispinalis dorsi muscle
External intercostal muscles
Mm. intercostales externi
Longissimus dorsi muscle
Multifidus spinæ muscle
M. multifidus
Longissimus dorsi muscle (inner row of insertions)
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
Obliquus capitis superior muscle
Rectus capitis posticus minor muscle
M. rectus capitis posterior minor
Rectus capitis posticus major muscle
M. rectus capitis posterior major
Obliquus capitis inferior muscle
Interspinales muscles
Scalenus medius muscle
Semispinalis colli muscle
M. semispinalis cervicis
Scalenus posticus muscle
M. scalenus posterior
Levatores costarum muscles
Mm. levatores costarum breves
External intercostal muscles
Mm. intercostales externi
Levatores costarum longiores muscles
Mm. levatores costarum longi
Multifidus spinæ muscle
M. multifidus
Intertransversales laterales muscles
Mm. intertransversarii posteriores laterales
Middle layer of the lumbar fascia, forming the posterior aponeurosis of the transversalis abdominis muscle—Lig. lumbocostale
Transversalis abdominis muscle
M. transversus abdominis
Gluteus medius muscle
M. glutæus medius
Gluteus maximus muscle
M. glutæus maximus
1/4

FIG. 511.—FOURTH LAYER OF THE MUSCLES OF THE BACK (LONG MUSCLES OF THE BACK); ON THE LEFT SIDE THE LONGISSIMUS DORSI AND THE TRANSVERSALIS CERVICIS HAVE BEEN DRAWN OUTWARDS, SHOWING THE CONNEXION BETWEEN THE TWO, AND THEIR ATTACHMENTS TO THE TRANSVERSE PROCESSES OF THE VERTEBRÆ; ON THE RIGHT SIDE THE ERECTOR SPINÆ MUSCLE HAS BEEN ENTIRELY REMOVED; THE SEMISPINALIS DORSI, SEMISPINALIS COLLI, SEMISPINALIS CAPITIS (COMPLEXUS), AND THE MULTIFIDUS SPINÆ MUSCLES MAKE UP THE FOURTH LAYER.

Regarding the insertion of the longissimus dorsi muscle into the lumbar vertebræ and the elventh and twelfth ribs, see also Fig. 592.

Musculi dorsi—Muscles of the back.

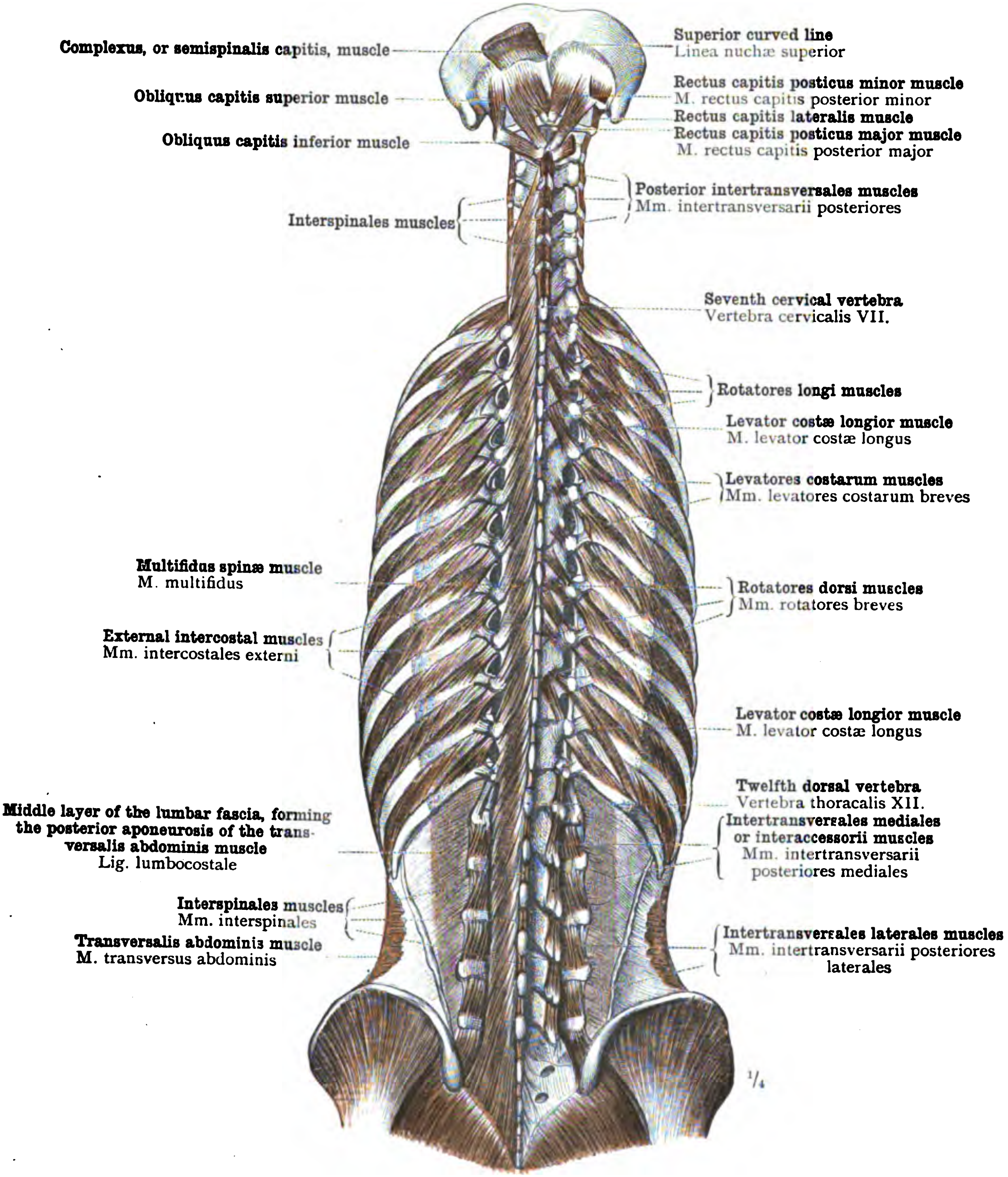

Complexus, or semispinalis capitis, muscle
Obliquus capitis superior muscle
Obliquus capitis inferior muscle
Interspinales muscles
Superior curved line
Linea nuchæ superior
Rectus capitis posticus minor muscle
M. rectus capitis posterior minor
Rectus capitis lateralis muscle
Rectus capitis posticus major muscle
M. rectus capitis posterior major
Posterior intertransversales muscles
Mm. intertransversarii posteriores
Seventh cervical vertebra
Vertebra cervicalis VII.
Rotatores longi muscles
Levator costæ longior muscle
M. levator costæ longus
Levatores costarum muscles
Mm. levatores costarum breves
Multifidus spinæ muscle
M. multifidus
Rotatores dorsi muscles
Mm. rotatores breves
External intercostal muscles
Mm. intercostales externi
Levator costæ longior muscle
M. levator costæ longus
Twelfth dorsal vertebra
Vertebra thoracalis XII.
Middle layer of the lumbar fascia, forming the posterior aponeurosis of the transversalis abdominis muscle
Lig. lumbocostale
Intertransversales mediales or interaccessorii muscles
Mm. intertransversarii posteriores mediales
Interspinales muscles
Mm. interspinales
Transversalis abdominis muscle
M. transversus abdominis
Intertransversales laterales muscles
Mm. intertransversarii posteriores laterales
1/4

FIG. 512.—FIFTH (DEEPEST) LAYER OF THE MUSCLES OF THE BACK (SHORT MUSCLES OF THE BACK): ROTATORES LONGI, ROTATORES DORSI; INTERSPINALES; INTERTRANSVERSALES; LEVATORES COSTARUM.

The short posterior craniovertebral or suboccipital muscles also belong to the fifth layer of the muscles of the back.

Musculi dorsi—Muscles of the back.

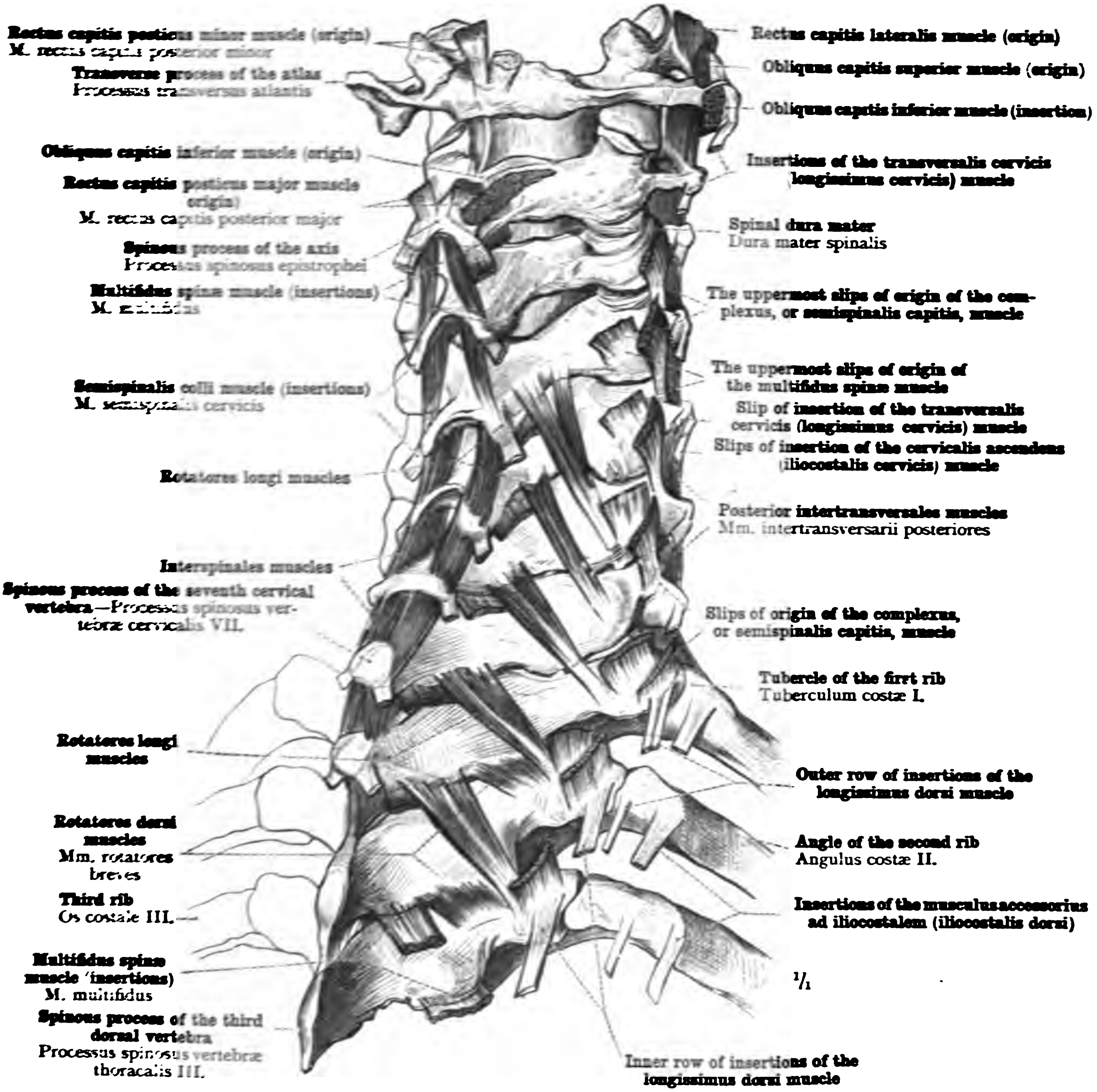

Rectus capitis posticus minor muscle (origin)
M. rectus capitis posterior minor
Transverse process of the atlas
Processus transversus atlantis
Obliquus capitis inferior muscle (origin)
Rectus capitis posticus major muscle (origin)
M. rectus capitis posterior major
Spinous process of the axis
Processus spinosus epistrophei
Multifidus spinæ muscle (insertions)
M. multifidus
Semispinalis colli muscle (insertions)
M. semispinalis cervicis
Rotatores longi muscles
Interspinales muscles
Spinous process of the seventh cervical vertebra—Processus spinosus vertebræ cervicalis VII.
Rotatores longi muscles
Rotatores dorsi muscles
Mm. rotatores breves
Third rib
Os costale III.
Multifidus spinæ muscle (insertions)
M. multifidus
Spinous process of the third dorsal vertebra
Processus spinosus vertebræ thoracalis III.
Rectus capitis lateralis muscle (origin)
Obliquus capitis superior muscle (origin)
Obliquus capitis inferior muscle (insertion)
Insertions of the transversalis cervicis (longissimus cervicis) muscle
Spinal dura mater
Dura mater spinalis
The uppermost slips of origin of the complexus, or semispinalis capitis, muscle
The uppermost slips of origin of the multifidus spinæ muscle
Slip of insertion of the transversalis cervicis (longissimus cervicis) muscle
Slips of insertion of the cervicalis ascendens (iliocostalis cervicis) muscle
Posterior intertransversales muscles
Mm. intertransversarii posteriores
Slips of origin of the complexus, or semispinalis capitis, muscle
Tubercle of the first rib
Tuberculum costæ I.
Outer row of insertions of the longissimus dorsi muscle
Angle of the second rib
Angulus costæ II.
Insertions of the musculus accessorius ad iliocostalem (iliocostalis dorsi)
1/1
Inner row of insertions of the longissimus dorsi muscle

FIG. 513.—ORIGIN AND INSERTION OF THE LONG AND THE SHORT MUSCLES OF THE BACK IN THE CERVICAL AND UPPER DORSAL REGION. ORIGIN OF THE SHORT POSTERIOR CRANIO-VERTEBRAL OR SUBOCCIPITAL MUSCLES. INTERSPINALES MUSCLES. POSTERIOR INTERTRANSVERSALES MUSCLES. ROTATORES LONGI AND ROTATORES DORSI MUSCLES.

Musculi dorsi—Muscles of the back.

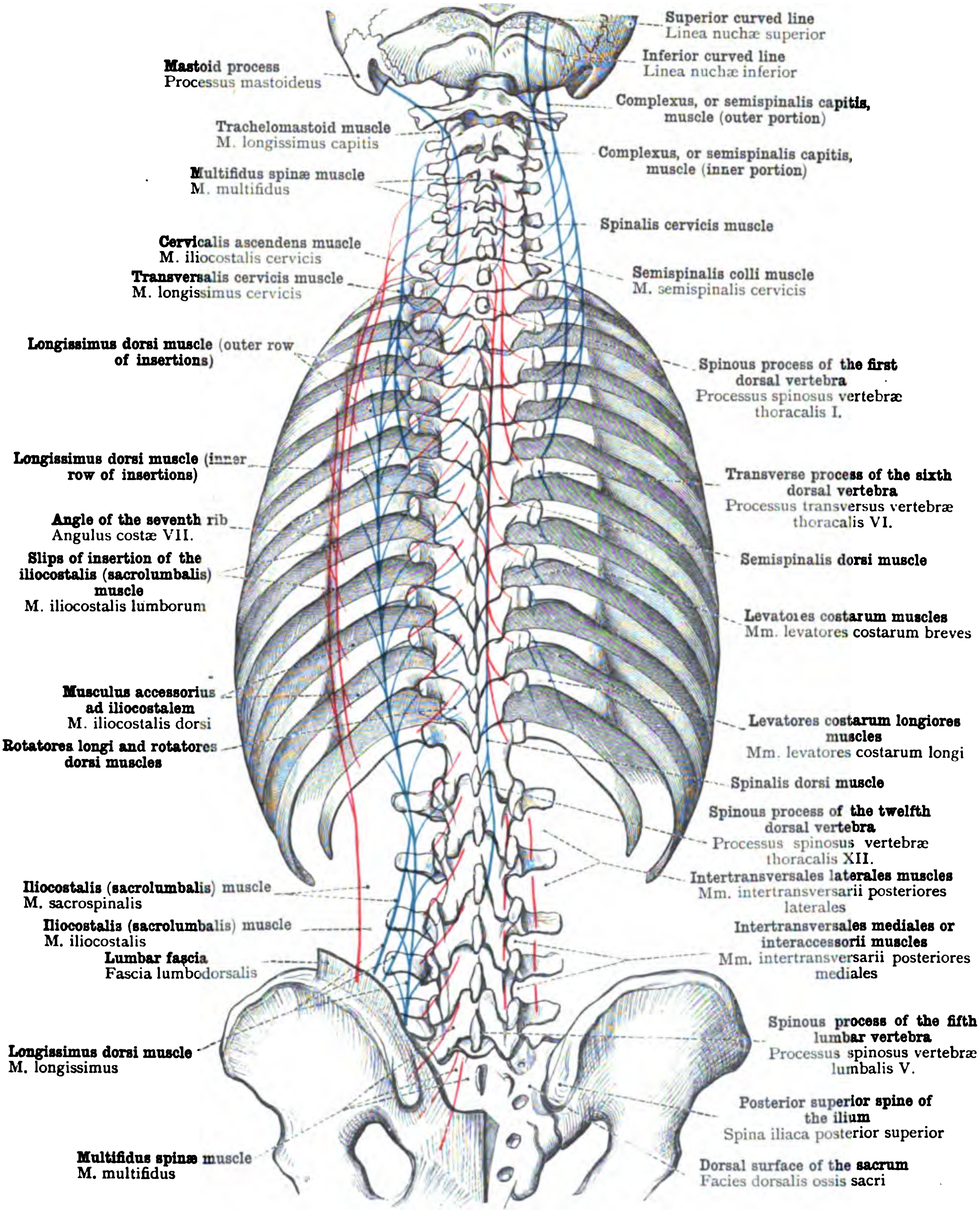

Mastoid process
Processus mastoideus
Trachelomastoid muscle
M. longissimus capitis
Multifidus spinæ muscle
M. multifidus
Cervicalis ascendens muscle
M. iliocostalis cervicis
Transversalis cervicis muscle
M. longissimus cervicis
Longissimus dorsi muscle (outer row of insertions)
Longissimus dorsi muscle (inner row of insertions)
Angle of the seventh rib
Angulus costæ VII.
Slips of insertion of the iliocostalis (sacrolumbalis) muscle
M. iliocostalis lumborum
Musculus accessorius ad iliocostalem
M. iliocostalis dorsi
Rotatores longi and rotatores dorsi muscles
Iliocostalis (sacrolumbalis) muscle
M. sacrospinalis
Iliocostalis (sacrolumbalis) muscle
M. iliocostalis
Lumbar fascia
Fascia lumbodorsalis
Longissimus dorsi muscle
M. longissimus
Multifidus spinæ muscle
M. multifidus
Superior curved line
Linea nuchæ superior
Inferior curved line
Linea nuchæ inferior
Complexus, or semispinalis capitis, muscle (outer portion)
Complexus, or semispinalis capitis, muscle (inner portion)
Spinalis cervicis muscle
Semispinalis colli muscle
M. semispinalis cervicis
Spinous process of the first dorsal vertebra
Processus spinosus vertebræ thoracalis I.
Transverse process of the sixth dorsal vertebra
Processus transversus vertebræ thoracalis VI.
Semispinalis dorsi muscle
Levatores costarum muscles
Mm. levatores costarum breves
Levatores costarum longiores muscles
Mm. levatores costarum longi
Spinalis dorsi muscle
Spinous process of the twelfth dorsal vertebra
Processus spinosus vertebræ thoracalis XII.
Intertransversales laterales muscles
Mm. intertransversarii posteriores laterales
Intertransversales mediales or interaccessorii muscles
Mm. intertransversarii posteriores mediales
Spinous process of the fifth lumbar vertebra
Processus spinosus vertebræ lumbalis V.
Posterior superior spine of the ilium
Spina iliaca posterior superior
Dorsal surface of the sacrum
Facies dorsalis ossis sacri

FIG. 514.—DIAGRAM SHOWING THE ORIGINS AND INSERTIONS OF THE LONG AND THE SHORT MUSCLES OF THE BACK.

Musculi dorsi—Muscles of the back.

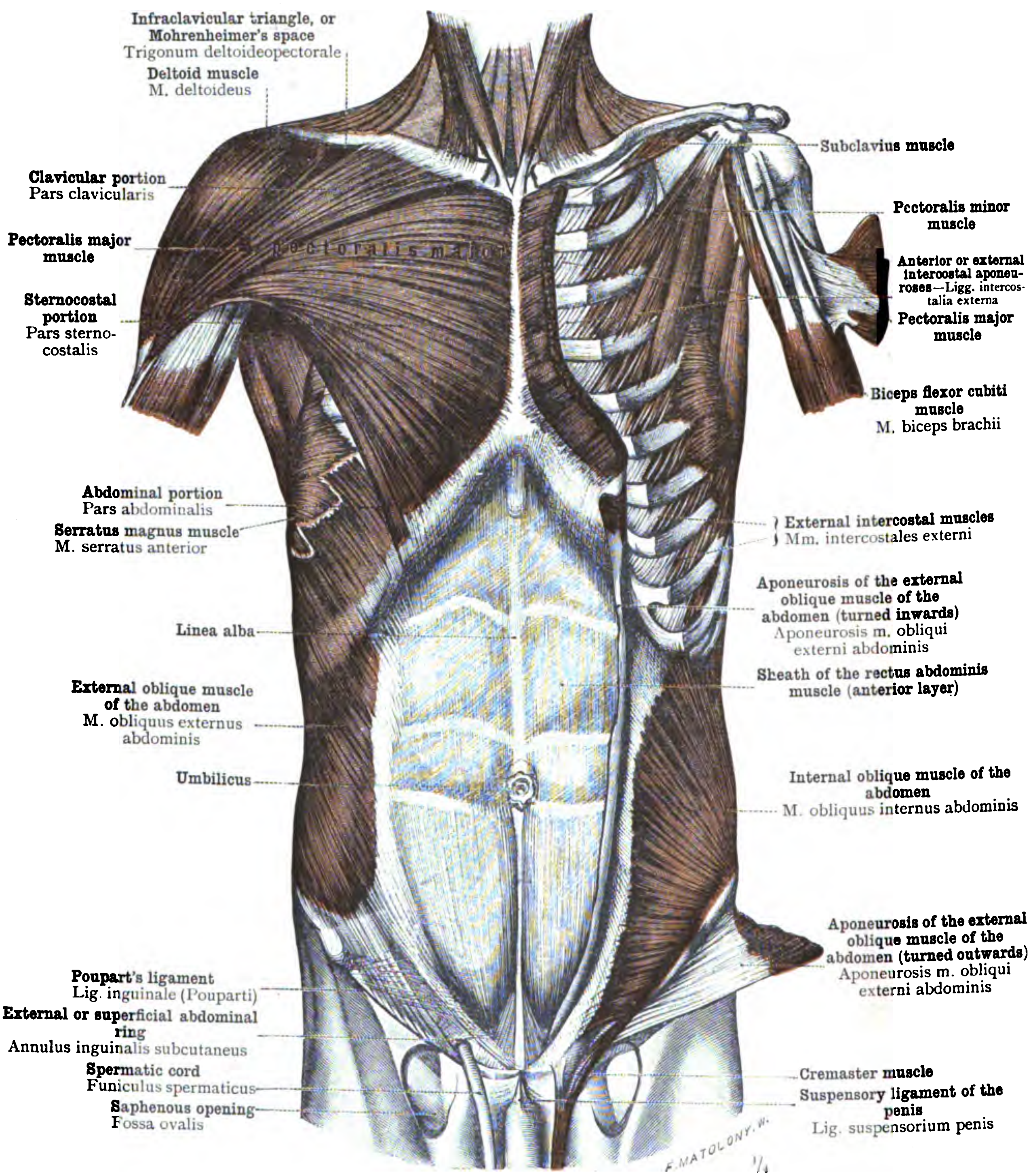
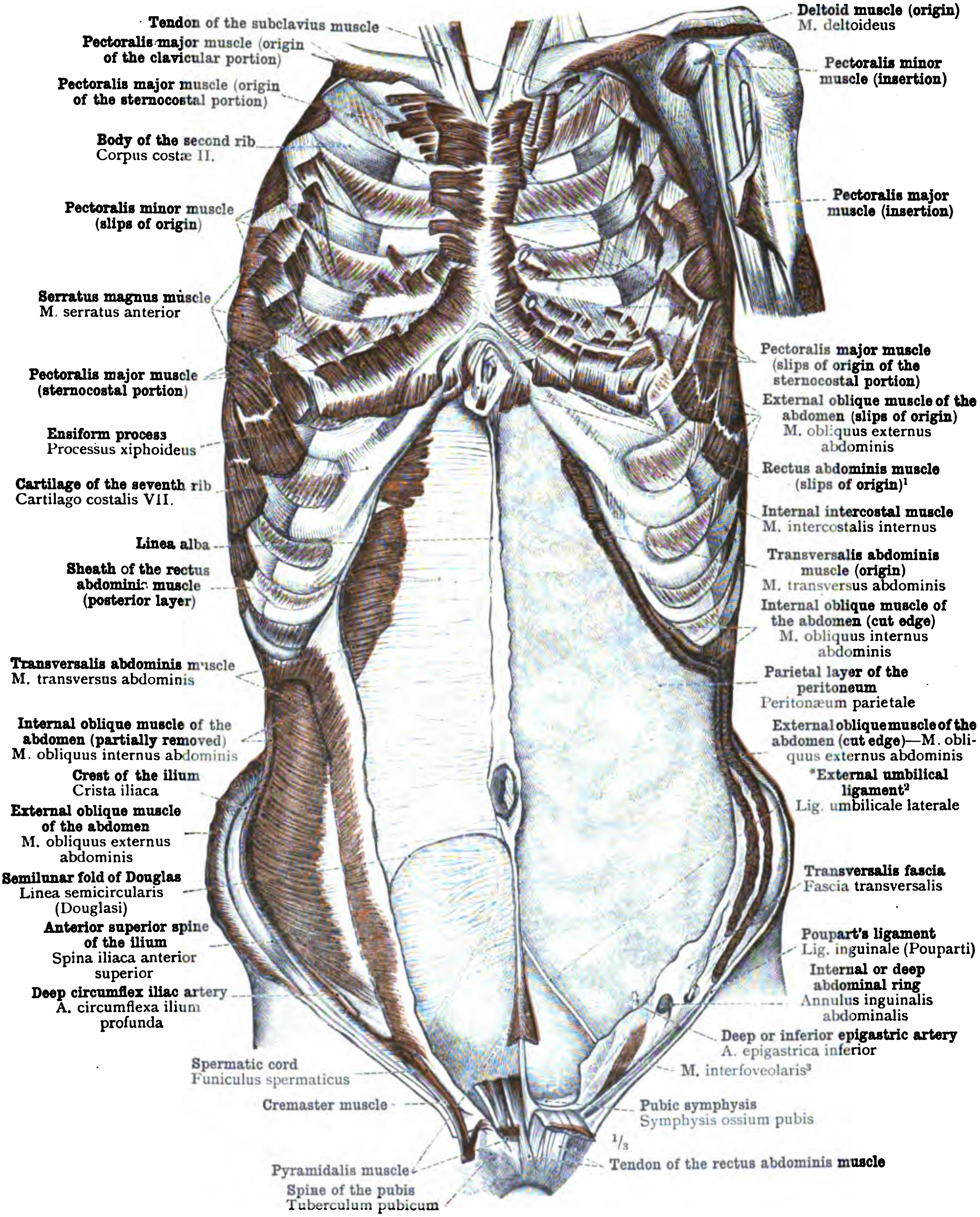

Infraclavicular triangle, or Mohrenheimer's space
Trigonum deltoideopectorale
Deltoid muscle
M. deltoideus
Clavicular portion
Pars clavicularis
Pectoralis major muscle
Sternocostal portion
Pars sternocostalis
Abdominal portion
Pars abdominalis
Serratus magnus muscle
M. serratus anterior
Linea alba
External oblique muscle of the abdomen
M. obliquus externus abdominis
Umbilicus
Poupart's ligament
Lig. inguinale (Pouparti)
External or superficial abdominal ring
Annulus inguinalis subcutaneus
Spermatic cord
Funiculus spermaticus
Saphenous opening
Fossa ovalis
Pectoralis major
Subclavius muscle
Pectoralis minor muscle
Anterior or external intercostal aponeuroses—Ligg. intercostalia externa
Pectoralis major muscle
Biceps flexor cubiti muscle
M. biceps brachii
External intercostal muscles
Mm. intercostales externi
Aponeurosis of the external oblique muscle of the abdomen (turned inwards)
Aponeurosis m. obliqui externi abdominis
Sheath of the rectus abdominis muscle (anterior layer)
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
Aponeurosis of the external oblique muscle of the abdomen (turned outwards)
Aponeurosis m. obliqui externi abdominis
Cremaster muscle
Suspensory ligament of the penis
Lig. suspensorium penis
F. MATOLONY. W.
1/1

FIG. 515.—THE THORACIC AND ABDOMINAL MUSCLES ARE SHOWN, ON THE RIGHT SIDE THE MOST SUPERFICIAL LAYER, AND ON THE LEFT SIDE THE LAYER IMMEDIATELY BENEATH THIS. PECTORALIS MAJOR AND PECTORALIS MINOR MUSCLES; SUBCLAVIUS MUSCLE; EXTERNAL AND INTERNAL OBLIQUE MUSCLES OF THE ABDOMEN.

Musculi thoracis et abdominis—Muscles of the thorax and abdomen.


Tendon of the subclavius muscle
Pectoralis major muscle (origin of the clavicular portion)
Pectoralis major muscle (origin of the sternocostal portion)
Body of the second rib
Corpus costæ II.
Pectoralis minor muscle (slips of origin)
Serratus magnus muscle
M. serratus anterior
Pectoralis major muscle (sternocostal portion)
Ensiform process
Processus xiphoideus
Cartilage of the seventh rib
Cartilago costalis VII.
Linea alba
Sheath of the rectus abdominis muscle (posterior layer)
Transversalis abdominis muscle
M. transversus abdominis
Internal oblique muscle of the abdomen (partially removed)
M. obliquus internus abdominis
Crest of the ilium
Crista iliaca
External oblique muscle of the abdomen
M. obliquus externus abdominis
Semilunar fold of Douglas
Linea semicircularis (Douglasi)
Anterior superior spine of the ilium
Spina iliaca anterior superior
Deep circumflex iliac artery
A. circumflexa ilium profunda
Spermatic cord
Funiculus spermaticus
Cremaster muscle
Pyramidalis muscle
Spine of the pubis
Tuberculum pubicum
Deltoid muscle (origin)
M. deltoideus
Pectoralis minor muscle (insertion)
Pectoralis major muscle (insertion)
Pectoralis major muscle (slips of origin of the sternocostal portion)
External oblique muscle of the abdomen (slips of origin)
M. obliquus externus abdominis
Rectus abdominis muscle (slips of origin)[1]
Internal intercostal muscle
M. intercostalis internus
Transversalis abdominis muscle (origin)
M. transversus abdominis
Internal oblique muscle of the abdomen (cut edge)
M. obliquus internus abdominis
Parietal layer of the peritoneum
Peritonæum parietale
External oblique muscle of the abdomen (cut edge)—M. obliquus externus abdominis
*External umbilical ligament[2]
Lig. umbilicale laterale
Transversalis fascia
Fascia transversalis
Poupart's ligament
Lig. inguinale (Pouparti)
Internal or deep abdominal ring
Annulus inguinalis abdominalis
Deep or inferior epigastric artery
A. epigastrica inferior
M. interfoveolaris[3]
Pubic symphysis
Symphysis ossium pubis
1/3
Tendon of the rectus abdominis muscle

---

[1] By English anatomists the inferior or pubic attachment of the rectus abdominis is regarded as the *origin* of that muscle, and the superior or costal attachment as its *insertion*.—Tr.

[2] See pages 386 and 387.

[3] A small bundle of muscular fibres in the posterior wall of the inguinal canal, running parallel with, but internal to, the spermatic cord, and anterior or superficial to that portion of the conjoined tendon known as the *ligamentum interfoveolare* or *ligament of Hesselbach*. This muscular slip is described neither by Quain nor by Macalister. It is figured on a larger scale on p. 385, Section III., of the present work.—Tr.

FIG. 516.—ORIGINS AND INSERTIONS OF THE THORACIC AND ABDOMINAL MUSCLES.

Musculi thoracis et abdominis—Muscles of the thorax and abdomen.

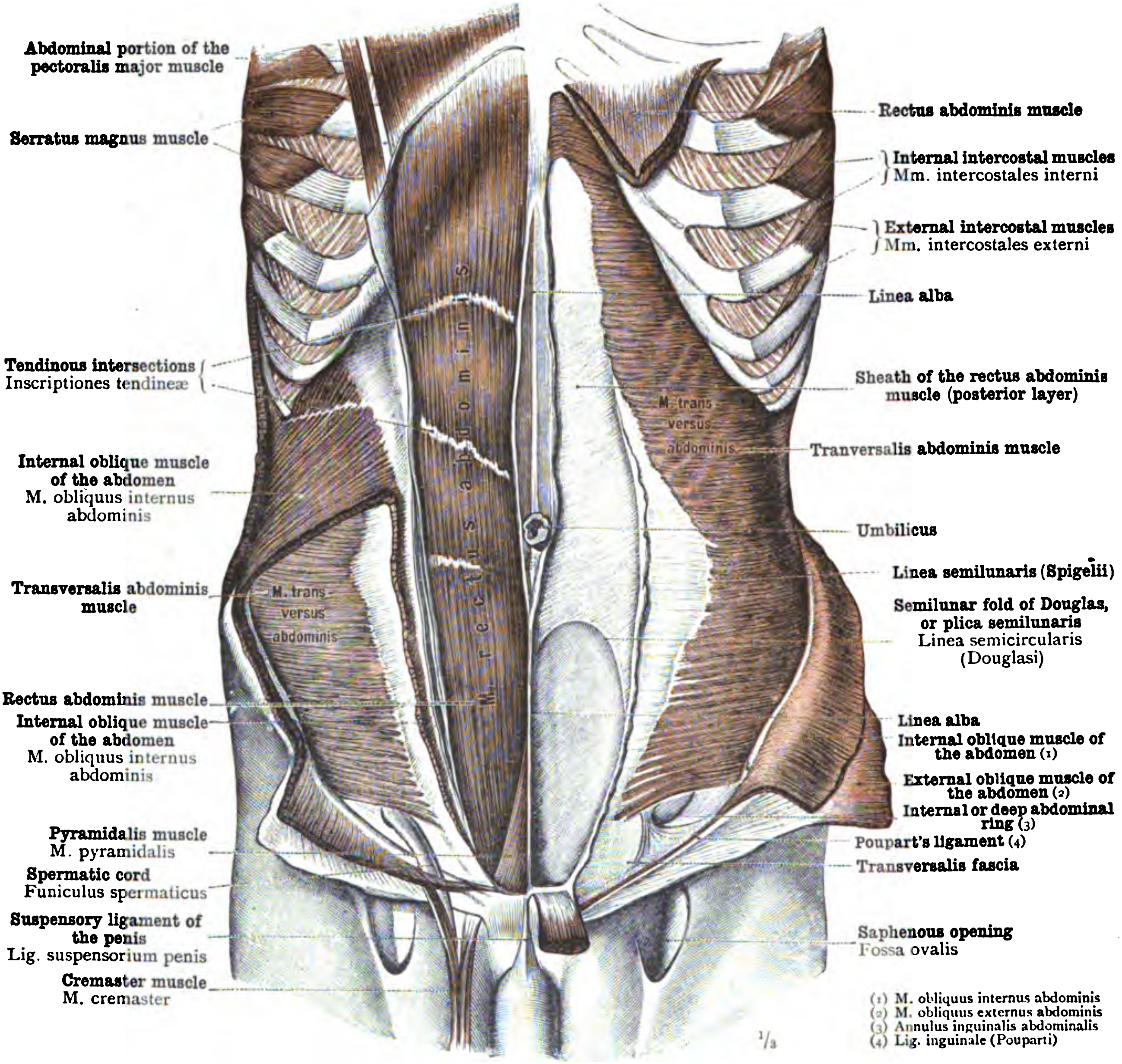

Abdominal portion of the pectoralis major muscle
Serratus magnus muscle
Tendinous intersections
Inscriptiones tendineæ
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
Transversalis abdominis muscle
Rectus abdominis muscle
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
Pyramidalis muscle
M. pyramidalis
Spermatic cord
Funiculus spermaticus
Suspensory ligament of the penis
Lig. suspensorium penis
Cremaster muscle
M. cremaster
M. trans versus abdominis
M. rectus abdominis
M. trans versus abdominis
Rectus abdominis muscle
Internal intercostal muscles
Mm. intercostales interni
External intercostal muscles
Mm. intercostales externi
Linea alba
Sheath of the rectus abdominis muscle (posterior layer)
Tranversalis abdominis muscle
Umbilicus
Linea semilunaris (Spigelii)
Semilunar fold of Douglas, or plica semilunaris
Linea semicircularis (Douglasi)
Linea alba
Internal oblique muscle of the abdomen (1)
External oblique muscle of the abdomen (2)
Internal or deep abdominal ring (3)
Poupart's ligament (4)
Transversalis fascia
Saphenous opening
Fossa ovalis
(1) M. obliquus internus abdominis
(2) M. obliquus externus abdominis
(3) Annulus inguinalis abdominalis
(4) Lig. inguinale (Pouparti)
1/3

FIG. 517.—THE ARRANGEMENT IN LAYERS OF THE ABDOMINAL MUSCLES AS DISPLAYED BY PARTIAL REMOVAL OF THE SUPERFICIAL LAYERS. THE RECTUS ABDOMINIS MUSCLE OF THE LEFT SIDE HAVING BEEN CUT AWAY, THE POSTERIOR LAYER OF THE SHEATH OF THAT MUSCLE IS EXPOSED. RECTUS ABDOMINIS MUSCLE; TRANSVERSALIS ABDOMINIS MUSCLE; PYRAMIDALIS MUSCLE.

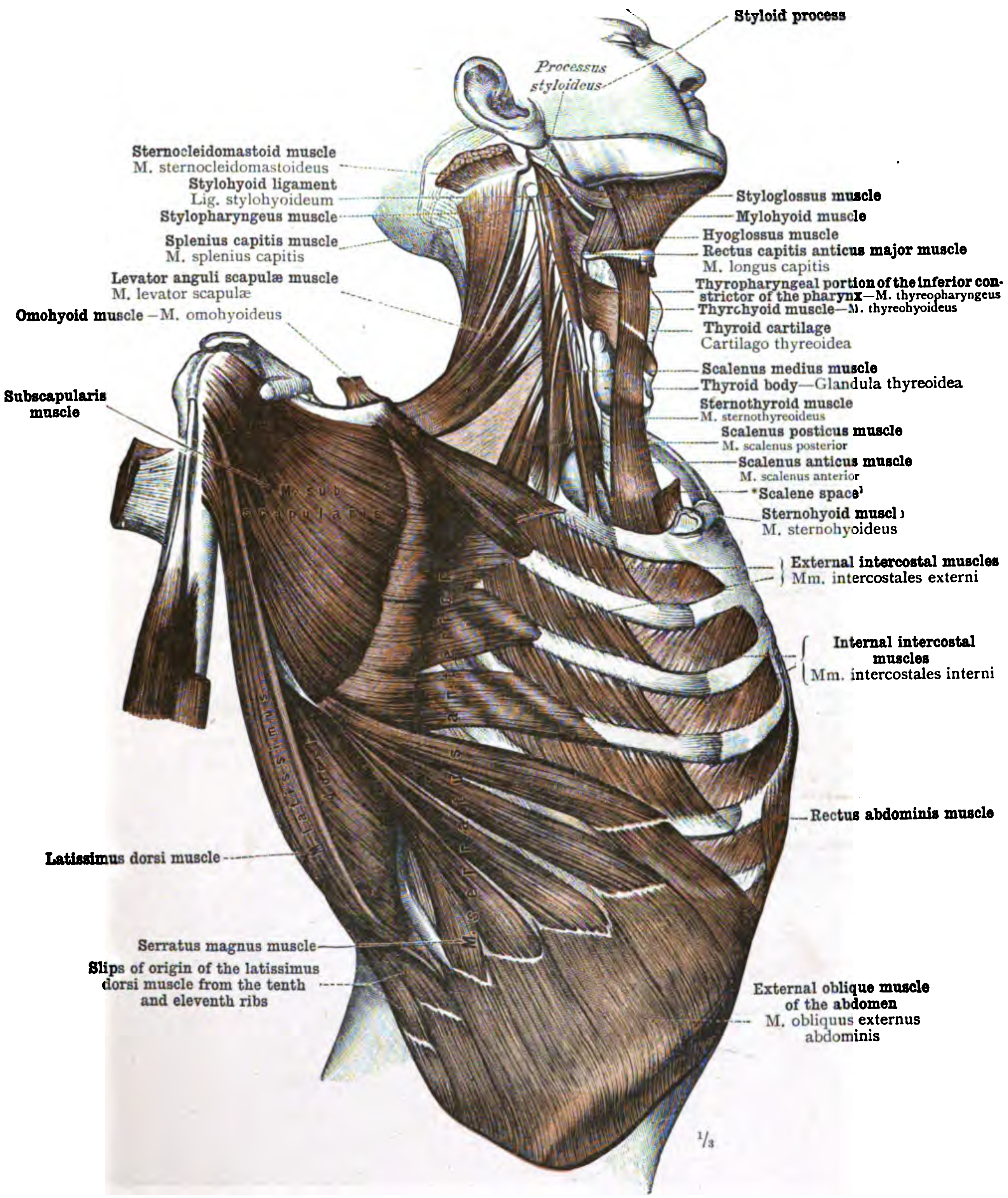
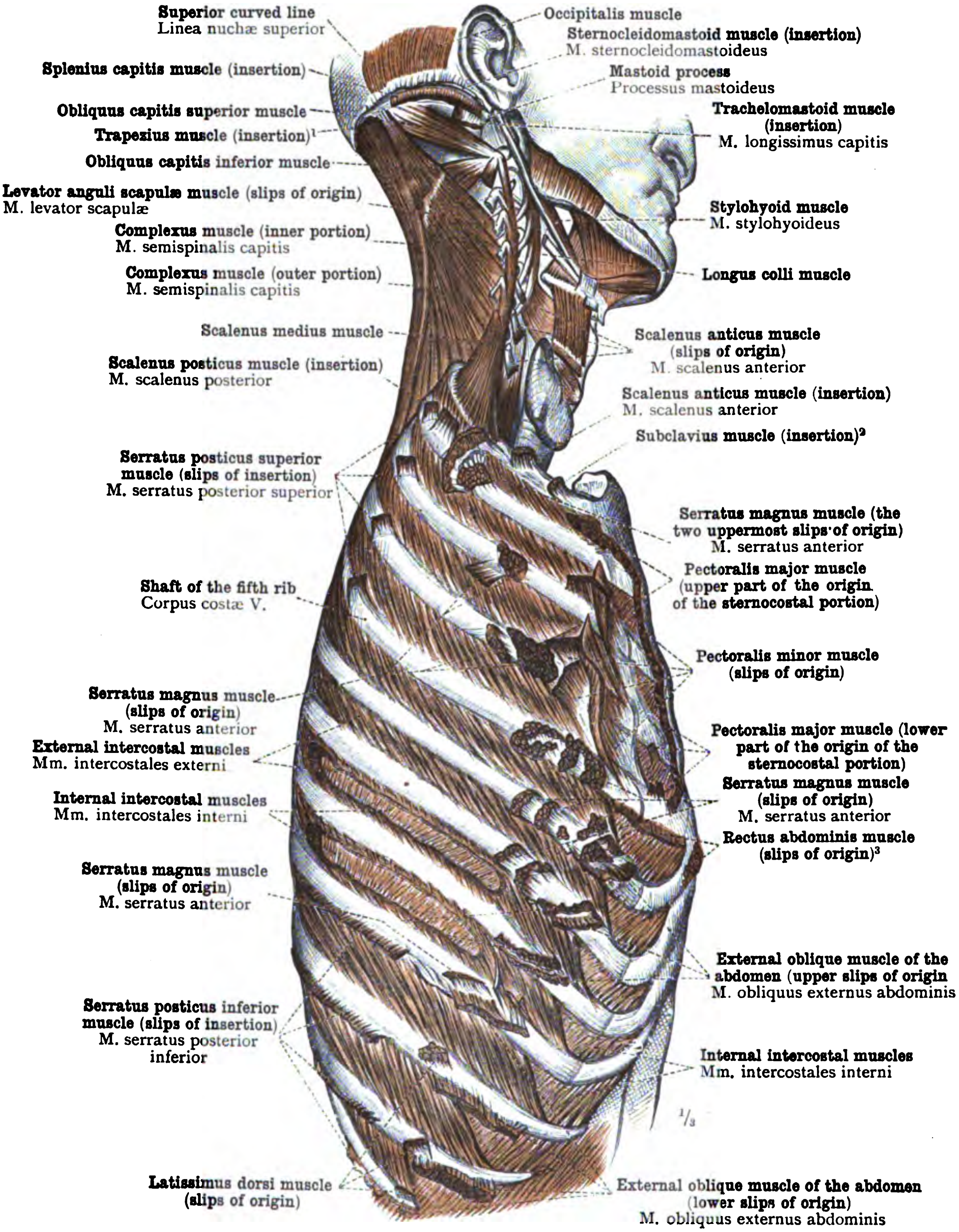


FIG. 518.—SERRATUS MAGNUS MUSCLE. LATISSIMUS DORSI AND SUBSCAPULARIS MUSCLE. THE THREE SCALENE MUSCLES AND THE *SCALENE SPACE.[1] LEVATOR ANGULI SCAPULÆ MUSCLE.

[1] This is a triangular space, the base of which is formed by the upper surface of the first rib, the anterior wall by the scalenus anticus muscle, and the posterior wall by the scalenus medius muscle. It is occupied by the brachial plexus and the second part of the subclavian artery.—TR.

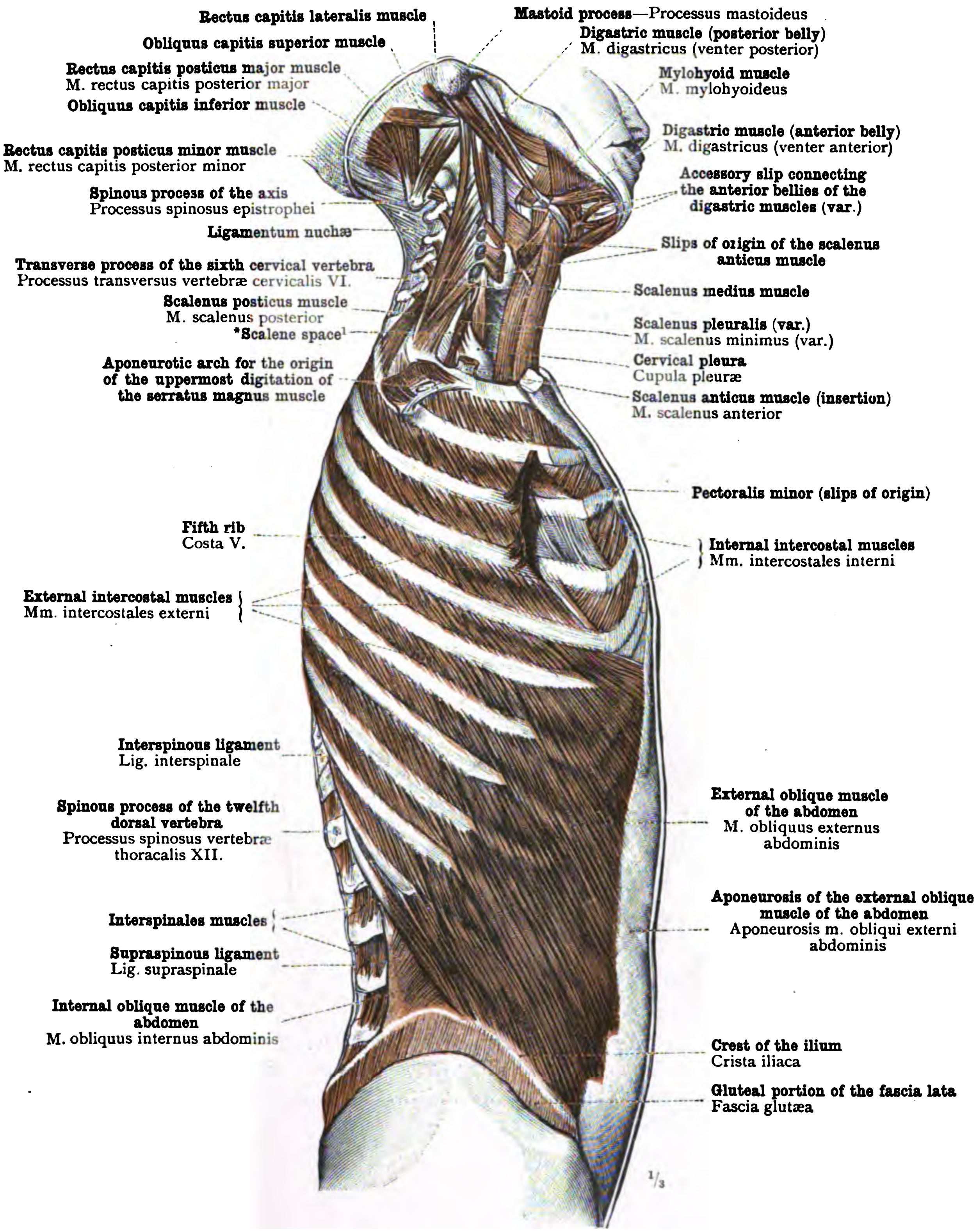
Musculi thoracis—Muscles of the thorax.


Superior curved line
Linea nuchæ superior
Splenius capitis muscle (insertion)
Obliquus capitis superior muscle
Trapezius muscle (insertion)[1]
Obliquus capitis inferior muscle
Levator anguli scapulæ muscle (slips of origin)
M. levator scapulæ
Complexus muscle (inner portion)
M. semispinalis capitis
Complexus muscle (outer portion)
M. semispinalis capitis
Scalenus medius muscle
Scalenus posticus muscle (insertion)
M. scalenus posterior
Serratus posticus superior muscle (slips of insertion)
M. serratus posterior superior
Shaft of the fifth rib
Corpus costæ V.
Serratus magnus muscle (slips of origin)
M. serratus anterior
External intercostal muscles
Mm. intercostales externi
Internal intercostal muscles
Mm. intercostales interni
Serratus magnus muscle (slips of origin)
M. serratus anterior
Serratus posticus inferior muscle (slips of insertion)
M. serratus posterior inferior
Latissimus dorsi muscle (slips of origin)
Occipitalis muscle
Sternocleidomastoid muscle (insertion)
M. sternocleidomastoideus
Mastoid process
Processus mastoideus
Trachelomastoid muscle (insertion)
M. longissimus capitis
Stylohyoid muscle
M. stylohyoideus
Longus colli muscle
Scalenus anticus muscle (slips of origin)
M. scalenus anterior
Scalenus anticus muscle (insertion)
M. scalenus anterior
Subclavius muscle (insertion)[2]
Serratus magnus muscle (the two uppermost slips of origin)
M. serratus anterior
Pectoralis major muscle (upper part of the origin of the sternocostal portion)
Pectoralis minor muscle (slips of origin)
Pectoralis major muscle (lower part of the origin of the sternocostal portion)
Serratus magnus muscle (slips of origin)
M. serratus anterior
Rectus abdominis muscle (slips of origin)[3]
External oblique muscle of the abdomen (upper slips of origin
M. obliquus externus abdominis
Internal intercostal muscles
Mm. intercostales interni
1/3
External oblique muscle of the abdomen (lower slips of origin)
M. obliquus externus abdominis

[1] *Origin* according to English anatomists.—Tr.
[2] English anatomists regard this as the *origin* of the subclavius muscle.—Tr.
[3] See note [1] to p. 275.

FIG. 519.—ORIGINS AND INSERTIONS OF THE MUSCLES ON THE ANTERIOR AND LATERAL WALLS OF THE THORAX. SEEN FROM THE RIGHT SIDE.

Musculi thoracis et abdominis—Muscles of the thorax and abdomen.


Rectus capitis lateralis muscle
Obliquus capitis superior muscle
Rectus capitis posticus major muscle
M. rectus capitis posterior major
Obliquus capitis inferior muscle
Rectus capitis posticus minor muscle
M. rectus capitis posterior minor
Spinous process of the axis
Processus spinosus epistrophei
Ligamentum nuchæ
Transverse process of the sixth cervical vertebra
Processus transversus vertebræ cervicalis VI.
Scalenus posticus muscle
M. scalenus posterior
*Scalene space[1]
Aponeurotic arch for the origin of the uppermost digitation of the serratus magnus muscle
Fifth rib
Costa V.
External intercostal muscles
Mm. intercostales externi
Interspinous ligament
Lig. interspinale
Spinous process of the twelfth dorsal vertebra
Processus spinosus vertebræ thoracalis XII.
Interspinales muscles
Supraspinous ligament
Lig. supraspinale
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
Mastoid process—Processus mastoideus
Digastric muscle (posterior belly)
M. digastricus (venter posterior)
Mylohyoid muscle
M. mylohyoideus
Digastric muscle (anterior belly)
M. digastricus (venter anterior)
Accessory slip connecting the anterior bellies of the digastric muscles (var.)
Slips of origin of the scalenus anticus muscle
Scalenus medius muscle
Scalenus pleuralis (var.)
M. scalenus minimus (var.)
Cervical pleura
Cupula pleuræ
Scalenus anticus muscle (insertion)
M. scalenus anterior
Pectoralis minor (slips of origin)
Internal intercostal muscles
Mm. intercostales interni
External oblique muscle of the abdomen
M. obliquus externus abdominis
Aponeurosis of the external oblique muscle of the abdomen
Aponeurosis m. obliqui externi abdominis
Crest of the ilium
Crista iliaca
Gluteal portion of the fascia lata
Fascia glutæa
1/3

[1] See note to p. 277.

FIG. 520.—MUSCULI INTERCOSTALES EXTERNI, THE EXTERNAL INTERCOSTAL MUSCLES; MUSCULUS OBLIQUUS EXTERNUS ABDOMINIS, THE EXTERNAL OBLIQUE MUSCLE OF THE ABDOMEN; THE SCALENE MUSCLES, WITH THE ANOMALOUS SCALENUS MINIMUS OR SCALENUS PLEURALIS.

Musculi thoracis et abdominis—Muscles of the thorax and abdomen.

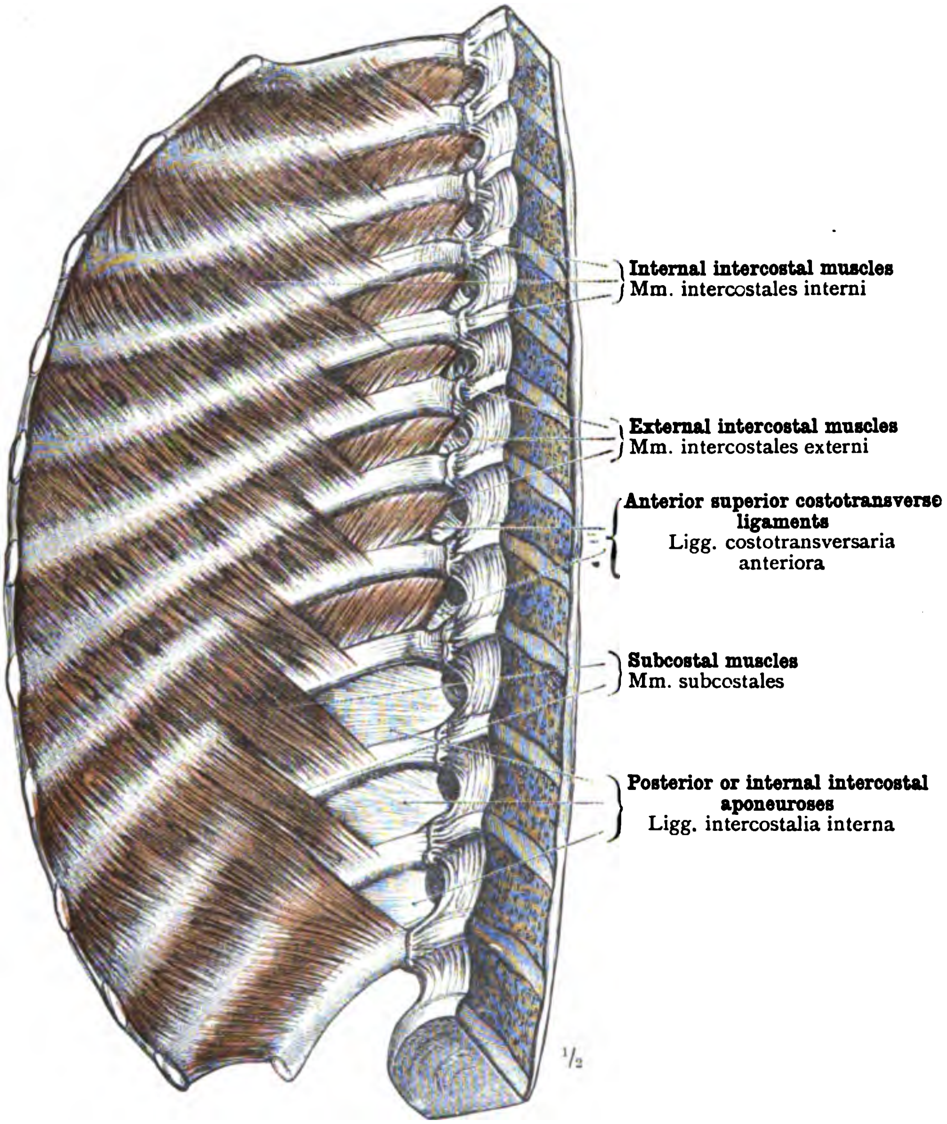

Internal intercostal muscles
Mm. intercostales interni
External intercostal muscles
Mm. intercostales externi
Anterior superior costotransverse ligaments
Ligg. costotransversaria anteriora
Subcostal muscles
Mm. subcostales
Posterior or internal intercostal aponeuroses
Ligg. intercostalia interna
1/2

Fig. 521.—The Muscles on the Inner Surface of the Lateral Wall of the Thorax, shown on the Right Side of the Body, the Diaphragm having been removed: Musculi Intercostales Intern Internal Intercostal Muscles; Musculi Subcostales, Subcostal Muscles.

Musculi thoracis—Muscles of the thorax.

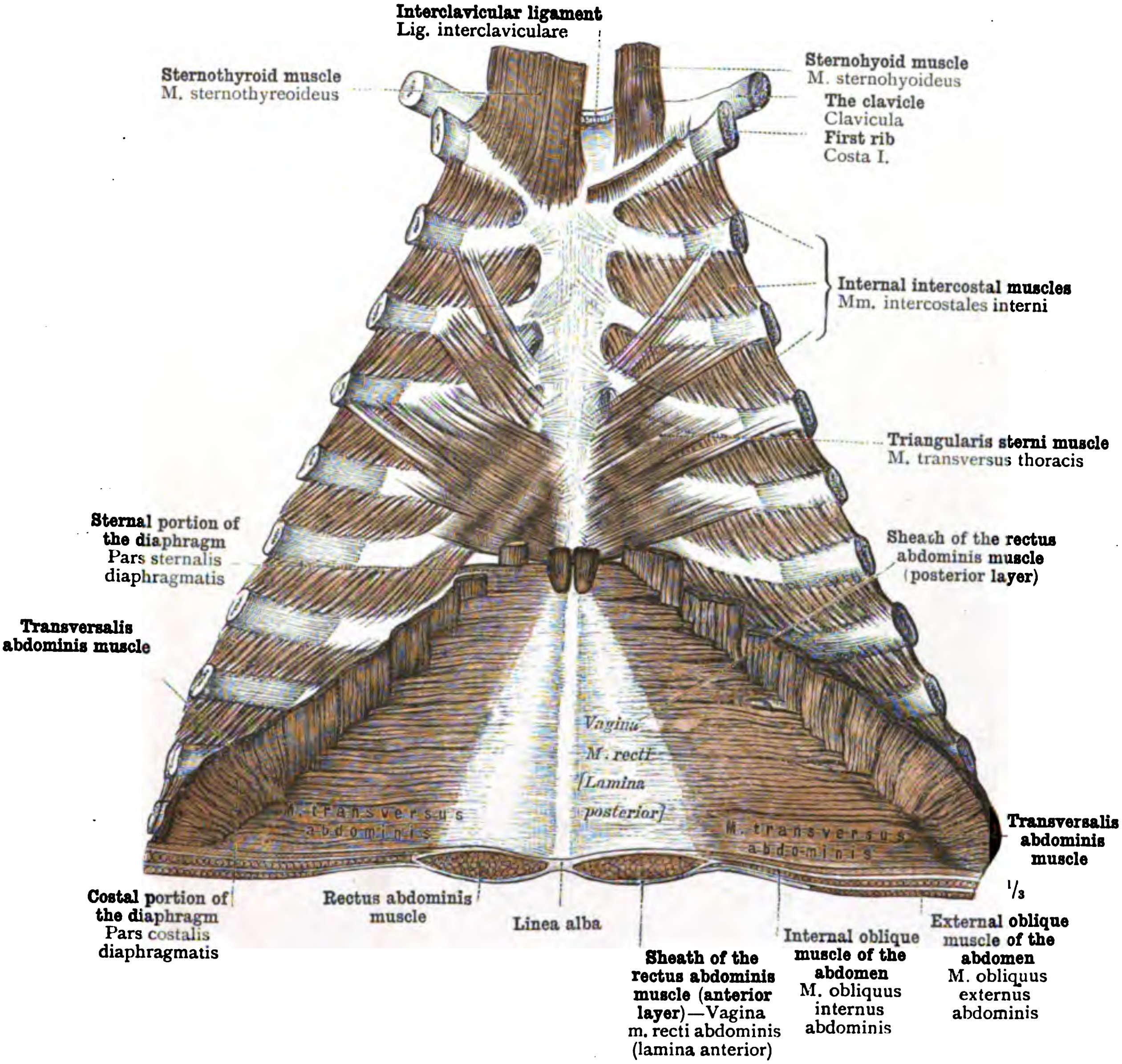

Interclavicular ligament
Lig. interclaviculare
Sternothyroid muscle
M. sternothyreoideus
Sternohyoid muscle
M. sternohyoideus
The clavicle
Clavicula
First rib
Costa I.
Internal intercostal muscles
Mm. intercostales interni
Triangularis sterni muscle
M. transversus thoracis
Sternal portion of the diaphragm
Pars sternalis diaphragmatis
Sheath of the rectus abdominis muscle (posterior layer)
Transversalis abdominis muscle
Vagina M. recti [Lamina posterior]
M. transversus abdominis
M. transversus abdominis
Transversalis abdominis muscle
1/3
Costal portion of the diaphragm
Pars costalis diaphragmatis
Rectus abdominis muscle
Linea alba
Sheath of the rectus abdominis muscle (anterior layer)—Vagina m. recti abdominis (lamina anterior)
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
External oblique muscle of the abdomen
M. obliquus externus abdominis

FIG. 522.—THE MUSCLES ON THE INNER SURFACE OF THE ANTERIOR WALL OF THE THORAX.

The slips of origin of the diaphragm from the costal cartilages and the ensiform process have been retained, in order to show their relation to the slips of origin of the transversalis abdominis muscle. The anterior wall of the abdomen has been divided horizontally at the level of the anterior extremities of the tenth pair of ribs to show the relation of the anterior aponeuroses of the external oblique, internal oblique, and transversalis muscles of the abdomen to the sheath of the rectus muscle, and to display the two layers of this sheath. The transversus thoracis or triangularis sterni muscle and the origins of the sternohyoid and sternothyroid muscles are also shown.

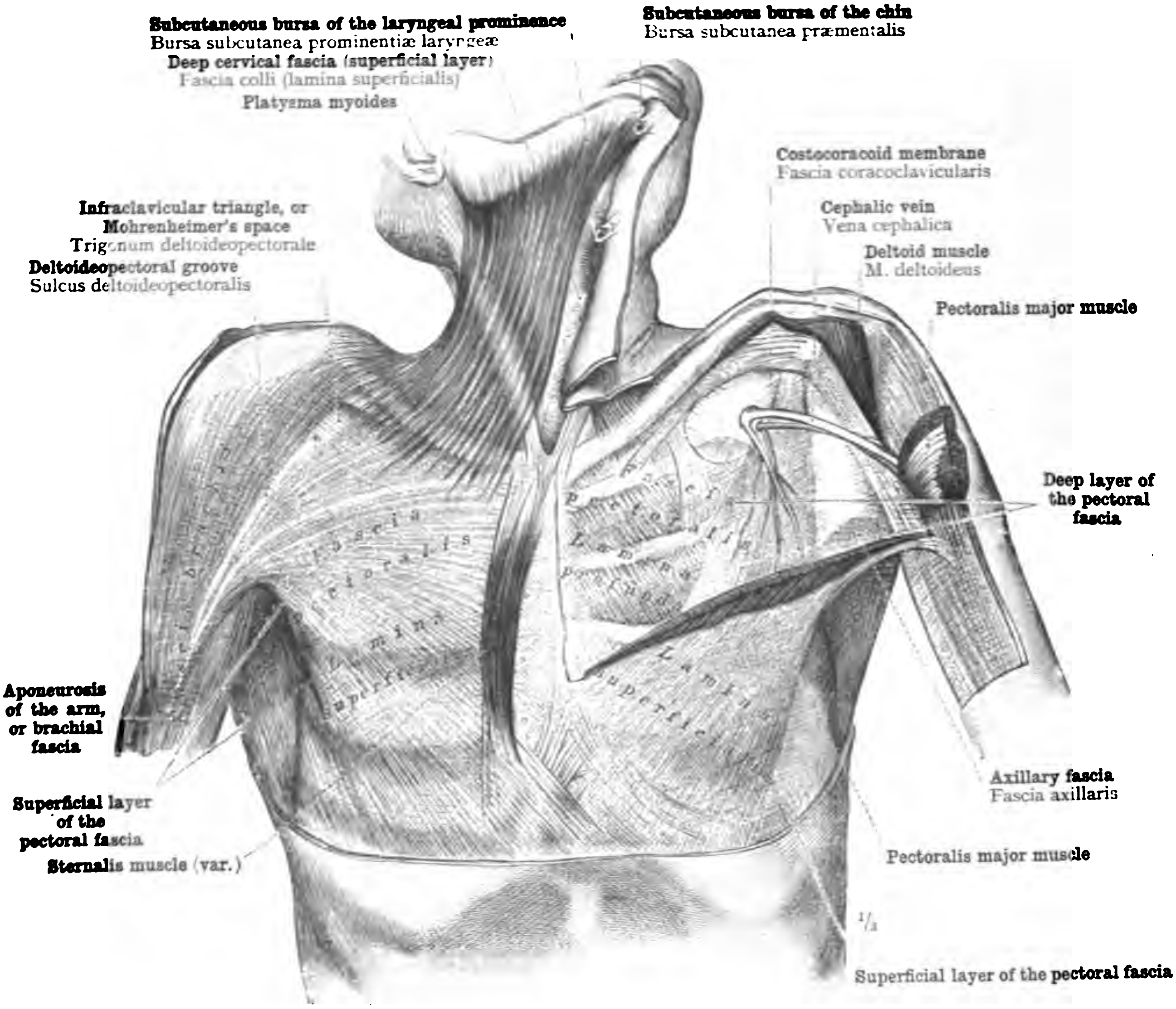

Subcutaneous bursa of the laryngeal prominence
Bursa subcutanea prominentiæ laryngeæ
Deep cervical fascia (superficial layer)
Fascia colli (lamina superficialis)
Platysma myoides
Subcutaneous bursa of the chin
Bursa subcutanea præmentalis
Costocoracoid membrane
Fascia coracoclavicularis
Cephalic vein
Vena cephalica
Deltoid muscle
M. deltoideus
Pectoralis major muscle
Infraclavicular triangle, or
Mohrenheimer's space
Trigonum deltoideopectorale
Deltoideopectoral groove
Sulcus deltoideopectoralis
Fascia pectoralis
Lamina superficialis
Lamina profunda
Fascia brachii
Deep layer of the pectoral fascia
Aponeurosis of the arm, or brachial fascia
Superficial layer of the pectoral fascia
Sternalis muscle (var.)
Axillary fascia
Fascia axillaris
Pectoralis major muscle
1/3
Superficial layer of the pectoral fascia

FIG. 523.—THE FASCIA OF THE ANTERIOR WALL OF THE THORAX, FASCIA PECTORALIS, THE PECTORAL FASCIA, AND ITS CONNEXIONS WITH THE FASCIÆ OF THE ADJOINING REGIONS OF THE BODY. THE ANOMALOUS STERNALIS MUSCLE.

On the right side of the body, the skin and the superficial fascia having been removed, the superficial layer of the pectoral fascia is displayed, and its continuity with the aponeurosis of the arm is shown; on the left side, the greater part of the pectoralis major muscle has been removed, in order to display the deep layer of the pectoral fascia, with its specialized band, the costocoracoid membrane, and to show the continuity of this deep layer with the axillary fascia.

Musculi thoracis—Muscles of the thorax.

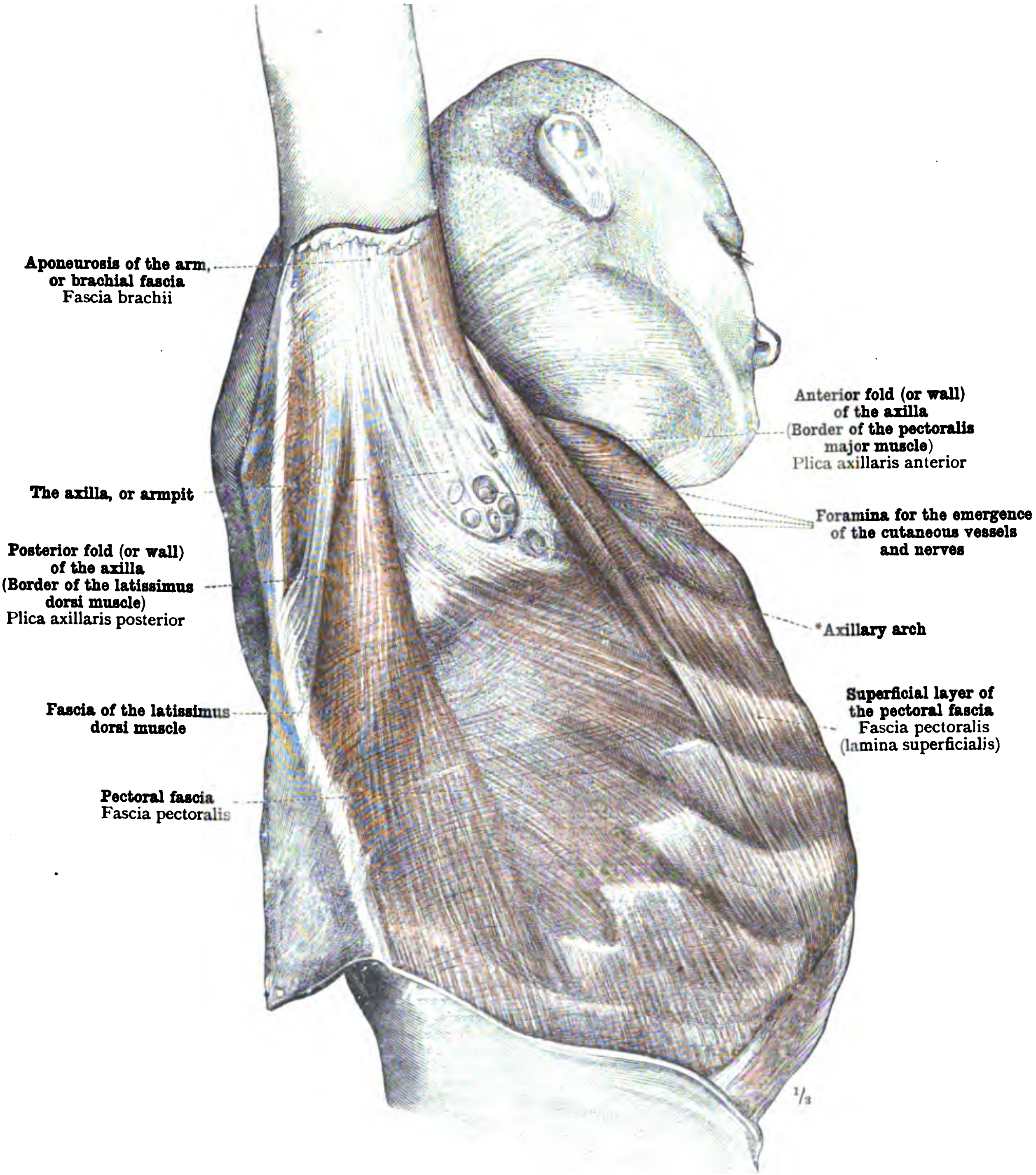

Aponeurosis of the arm, or brachial fascia
Fascia brachii
The axilla, or armpit
Posterior fold (or wall) of the axilla (Border of the latissimus dorsi muscle)
Plica axillaris posterior
Fascia of the latissimus dorsi muscle
Pectoral fascia
Fascia pectoralis
Anterior fold (or wall) of the axilla (Border of the pectoralis major muscle)
Plica axillaris anterior
Foramina for the emergence of the cutaneous vessels and nerves
***Axillary arch**
Superficial layer of the pectoral fascia
Fascia pectoralis (lamina superficialis)
1/3

FIG. 524.—THE AXILLA WITH THE ANTERIOR AND POSTERIOR AXILLARY FOLDS, PLICA AXILLARIS ANTERIOR ET PLICA AXILLARIS POSTERIOR. FASCIA AXILLARIS, THE AXILLARY FASCIA, WITH THE *AXILLARY ARCH OF LANGER.

The axillary fascia forms the base or inferior boundary of the axillary fossa. The cutaneous vessels and nerves have been removed.

Musculi thoracis—Muscles of the thorax.

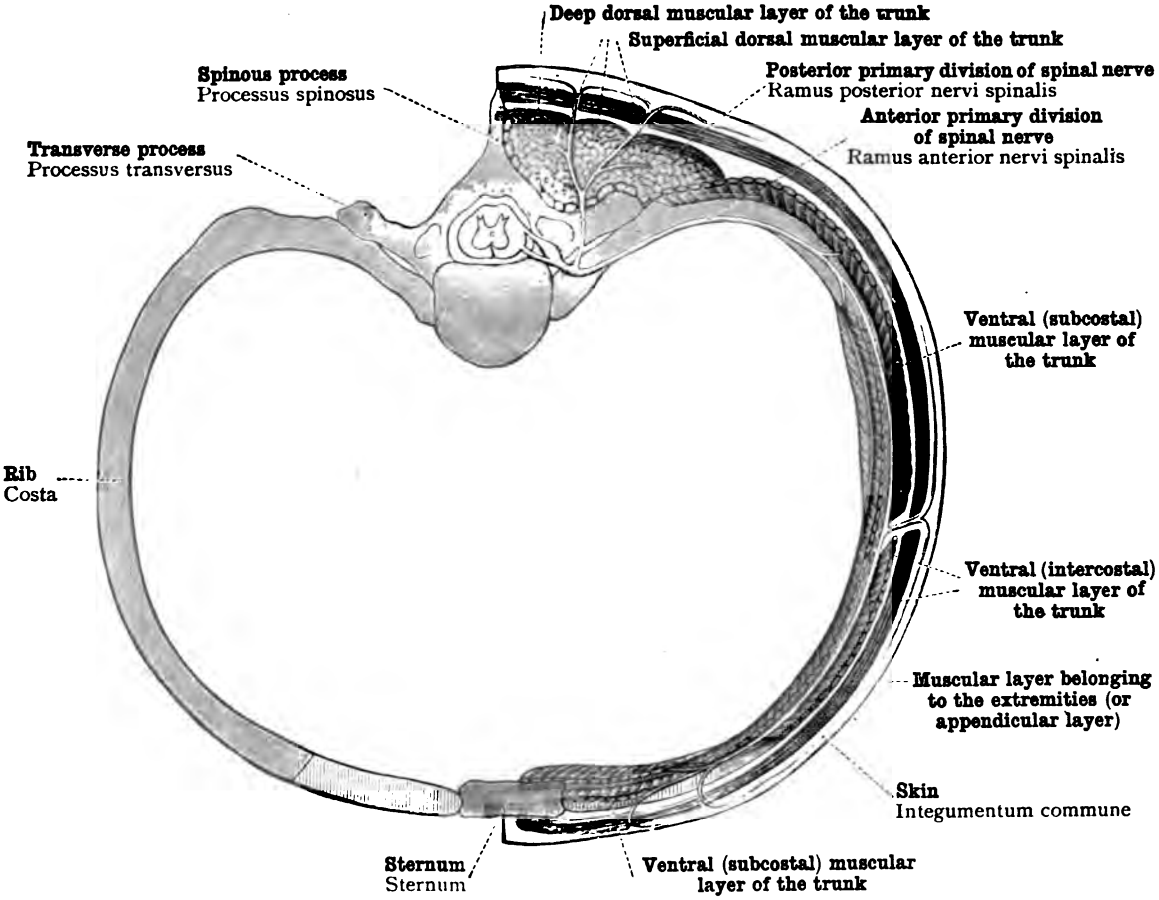

Deep dorsal muscular layer of the trunk
Superficial dorsal muscular layer of the trunk
Spinous process
Processus spinosus
Posterior primary division of spinal nerve
Ramus posterior nervi spinalis
Anterior primary division of spinal nerve
Ramus anterior nervi spinalis
Transverse process
Processus transversus
Ventral (subcostal) muscular layer of the trunk
Rib
Costa
Ventral (intercostal) muscular layer of the trunk
Muscular layer belonging to the extremities (or appendicular layer)
Skin
Integumentum commune
Sternum
Sternum
Ventral (subcostal) muscular layer of the trunk

FIG. 525.—DIAGRAMMATIC REPRESENTATION OF THE MUSCLES OF THE TRUNK AND OF THE DISTRIBUTION OF THE SEGMENTAL NERVES BY WHICH THEY ARE SUPPLIED, SHOWN IN A THORACIC SEGMENT.

NOTE.

A brief explanation of this diagram seems needful, in the interest of students who have not made a special study of comparative anatomy. The muscles are grouped, first of all, into dorsal and ventral, the former being supplied by the posterior and the latter by the anterior primary divisions, respectively, of the spinal nerves. The dorsal muscles form the great mass lying chiefly in the hollow between the spinous processes and the angles of the ribs. They are classed in two groups—superficial and deep. These need not be further considered. The ventral muscles are shown to be arranged in three layers. In the abdominal region these are represented by three actual muscles, to name them from within outwards: the transversalis, the internal oblique, and the external oblique. Continuous with the deepest of these, the transversalis, for the purposes of this classification, are the triangularis sterni, the subcostals, the sternal and costal portions of the diaphragm and part of the levator ani—these form the *subcostal* layer. Continuous with the internal oblique are the intercostals, the posterior serrati, the scalene muscles, and the quadratus lumborum—these form the *intercostal* layer. Continuous with the external oblique are all the muscles connecting the scapula with the trunk, viz.: the trapezius, levator anguli scapulæ, serratus magnus, and rhomboidei muscles, also the latissimus dorsi, the pectorals, the sternocleidomastoid, and the superficial perineal muscles—these constitute what may be called the *appendicular* layer. There is finally a more superficial layer still (not shown in the figure), superficial indeed to the deep fascia, corresponding to the panniculosus carnosus of lower mammals, but represented in man only by the platysma myoides, the occipitofrontalis, and the muscles of the ear and face.—TR.

Musculi trunci—Muscles of the trunk.

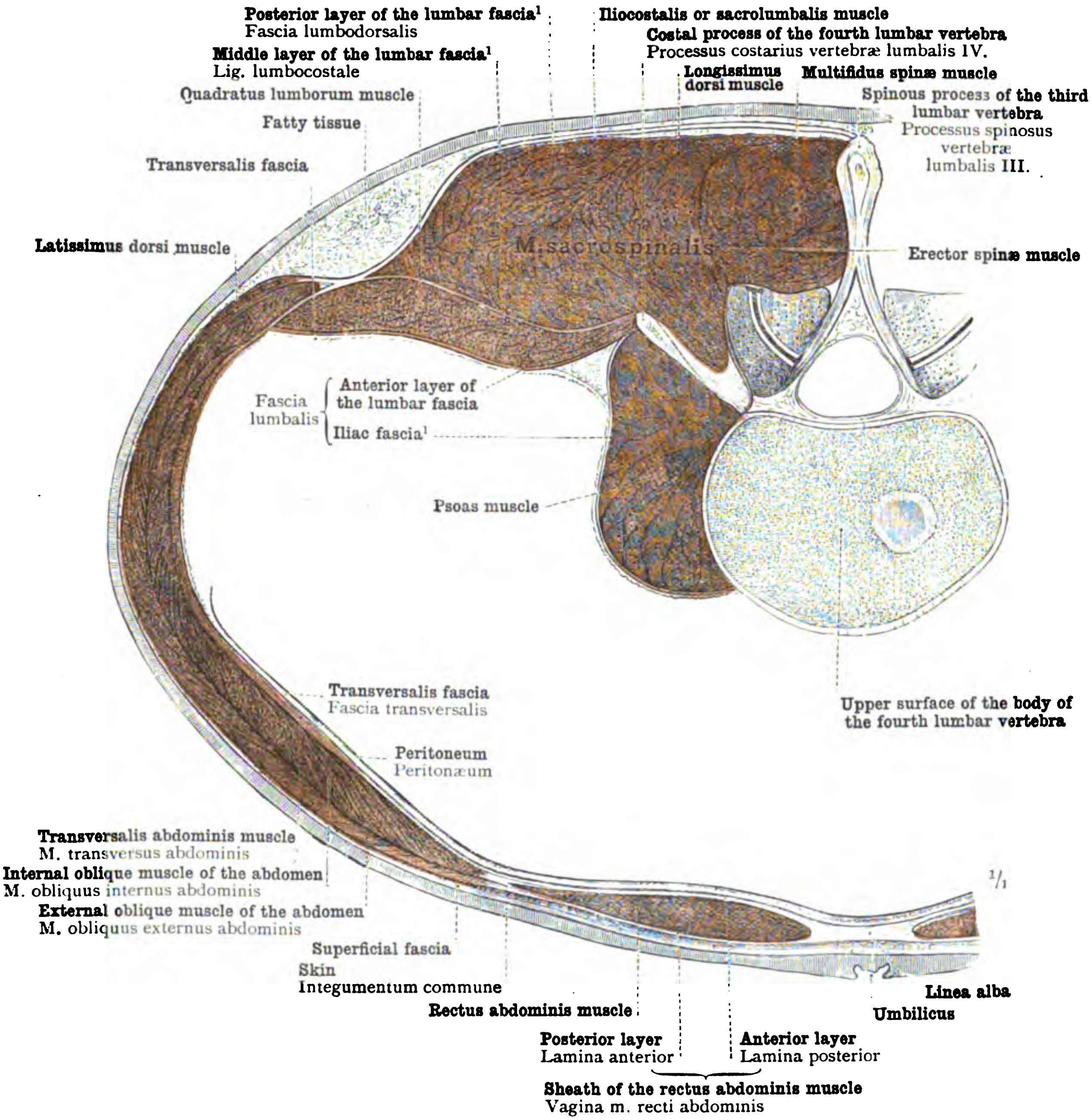

Posterior layer of the lumbar fascia[1]
Fascia lumbodorsalis
Middle layer of the lumbar fascia[1]
Lig. lumbocostale
Quadratus lumborum muscle
Fatty tissue
Transversalis fascia
Latissimus dorsi muscle
Iliocostalis or sacrolumbalis muscle
Costal process of the fourth lumbar vertebra
Processus costarius vertebræ lumbalis IV.
Longissimus dorsi muscle
Multifidus spinæ muscle
Spinous process of the third lumbar vertebra
Processus spinosus vertebræ lumbalis III.
M. sacrospinalis
Erector spinæ muscle
Fascia lumbalis
Anterior layer of the lumbar fascia
Iliac fascia[1]
Psoas muscle
Upper surface of the body of the fourth lumbar vertebra
Transversalis fascia
Fascia transversalis
Peritoneum
Peritonæum
Transversalis abdominis muscle
M. transversus abdominis
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
External oblique muscle of the abdomen
M. obliquus externus abdominis
Superficial fascia
Skin
Integumentum commune
Rectus abdominis muscle
1/1
Linea alba
Umbilicus
Posterior layer
Lamina anterior
Anterior layer
Lamina posterior
Sheath of the rectus abdominis muscle
Vagina m. recti abdominis

FIG. 526.—THE STRATIFICATION OF THE MUSCLES OF THE TRUNK AND OF THEIR ASSOCIATED FASCIÆ, DISPLAYED IN A HORIZONTAL SECTION OF THE RIGHT HALF OF THE BODY-WALL. THE CONNEXIONS BETWEEN THE ANTERIOR APONEUROSES OF THE WIDE MUSCLES OF THE ABDOMEN AND THE SHEATH OF THE RECTUS ARE SHOWN.

The section was made in a frozen body at the level of the navel, and passed posteriorly through the intervertebral disc between the third and fourth lumbar vertebræ.

Musculi trunci—Muscles of the trunk.

---

[1] In connexion with this figure, an account of the differences between the author's nomenclature of the fasciæ of the back and abdomen and the nomenclature commonly employed by English anatomists may most suitably be given. The *lumbar fascia*, according to most English authors, is regarded as consisting of three layers. The *superficial* or *posterior layer*, called by Toldt (see Fig. 526) *fascia lumbodorsalis*, is the layer passing behind the composite mass of the erector spinæ muscle to be attached to the tips of the spinous processes (see note to p. 267). The *middle layer*, called by Toldt (see Fig. 526 on this page and also Fig. 512 on p. 271) *ligamentum lumbocostale*, passes in front of the erector spinæ, between that muscle and the quadratus lumborum, to be attached to the tips of the costal (or so-called transverse) processes of the lumbar vertebræ. At the outer edge of the erector spinæ muscle the posterior and middle layers unite to form the posterior aponeurosis of the transversalis abdominis muscle. The *anterior layer of the lumbar fascia* (called by Toldt *fascia lumbalis*) is the thin membrane lying on the anterior surface of the quadratus lumborum muscle. At the inner edge of this muscle it is attached to the anterior surfaces of the costal processes of the lumbar vertebræ, and at the outer edge of the muscle it is continuous with the *transversalis fascia*, the membrane lining the deep surface of the transversalis abdominis muscle. The term *fascia lumbalis* is applied by Toldt also to the fascia covering the abdominal surface of the psoas muscle, but by English anatomists this membrane is regarded as a portion of the *iliac fascia*.—TR.

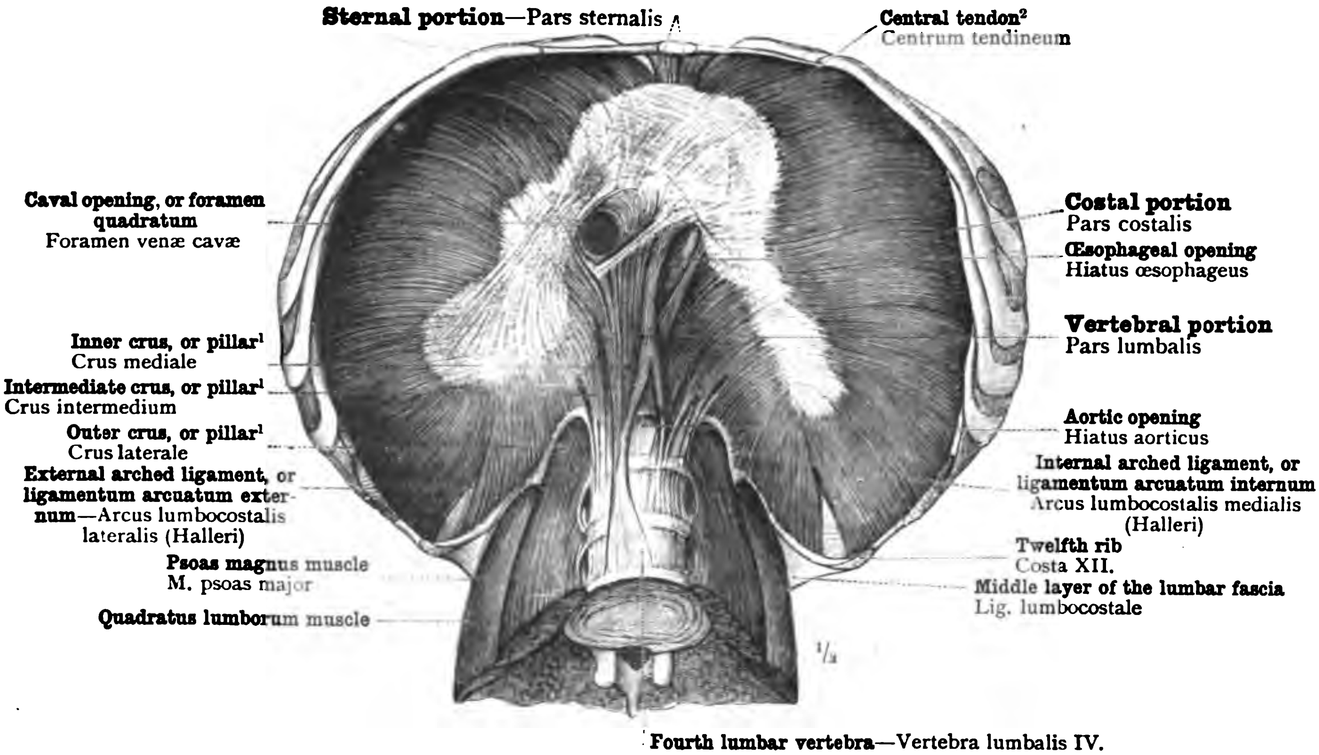
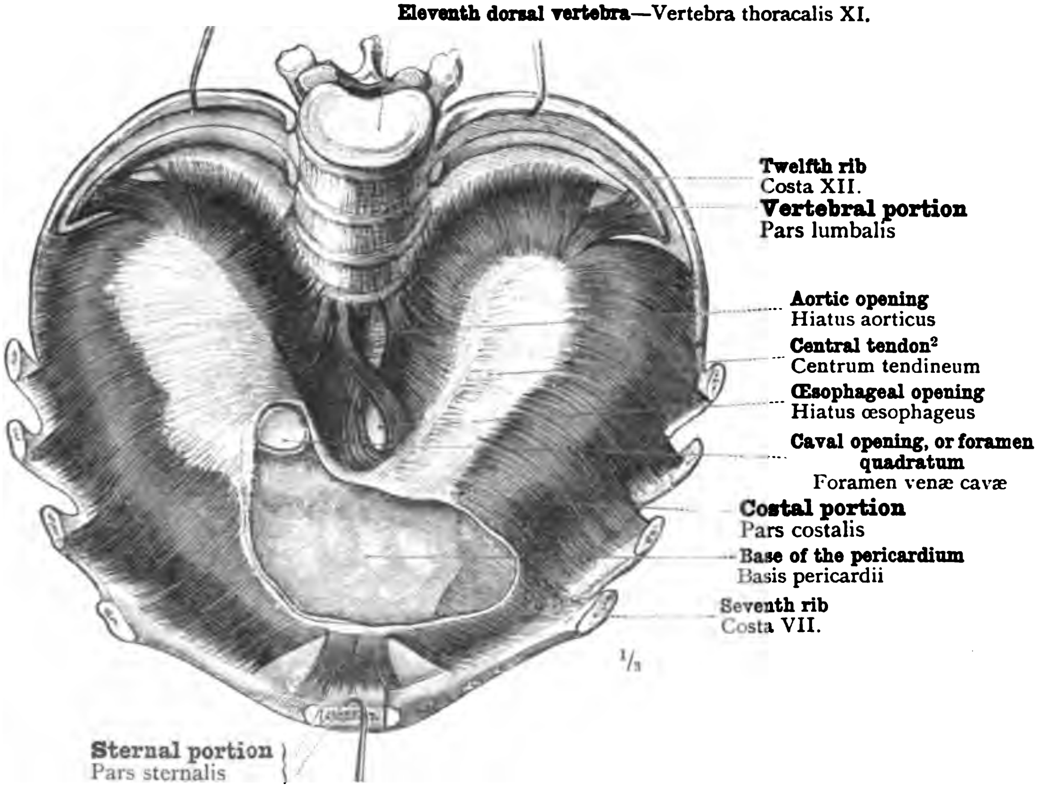

Sternal portion—Pars sternalis
Central tendon[2]
Centrum tendineum
Caval opening, or foramen quadratum
Foramen venæ cavæ
Costal portion
Pars costalis
Œsophageal opening
Hiatus œsophageus
Vertebral portion
Pars lumbalis
Inner crus, or pillar[1]
Crus mediale
Intermediate crus, or pillar[1]
Crus intermedium
Outer crus, or pillar[1]
Crus laterale
Aortic opening
Hiatus aorticus
External arched ligament, or ligamentum arcuatum externum—Arcus lumbocostalis lateralis (Halleri)
Internal arched ligament, or ligamentum arcuatum internum
Arcus lumbocostalis medialis (Halleri)
Twelfth rib
Costa XII.
Psoas magnus muscle
M. psoas major
Middle layer of the lumbar fascia
Lig. lumbocostale
Quadratus lumborum muscle
1/2
Fourth lumbar vertebra—Vertebra lumbalis IV.

FIG. 527.—VIEW OF THE DIAPHRAGM WITH ITS CRURA FROM BELOW. (ABDOMINAL ASPECT.)



---

[1] The *crura*, or *pillars*, of the diaphragm described by English anatomists are two only in number, a longer *right crus* and a shorter *left crus*. Each of these is composed of all the fibres passing from the right and left sides, respectively, of the bodies of the lumbar vertebræ and the intervertebral discs to the central tendon. Thus, the *crus* of English authors corresponds to the combined *inner crus* and *intermediate crus* of Toldt; while the *outer crus* of the latter is in England not considered to belong to the crural portions of the diaphragm. —TR.

[2] Called also the *trefoil* or *cordiform tendon* of the diaphragm.—TR.

FIG. 528.—VIEW OF THE DIAPHRAGM FROM ABOVE, WITH THE BASAL PORTION OF THE PERICARDIUM. (THORACIC ASPECT.)

Diaphragma—The diaphragm, or midriff.

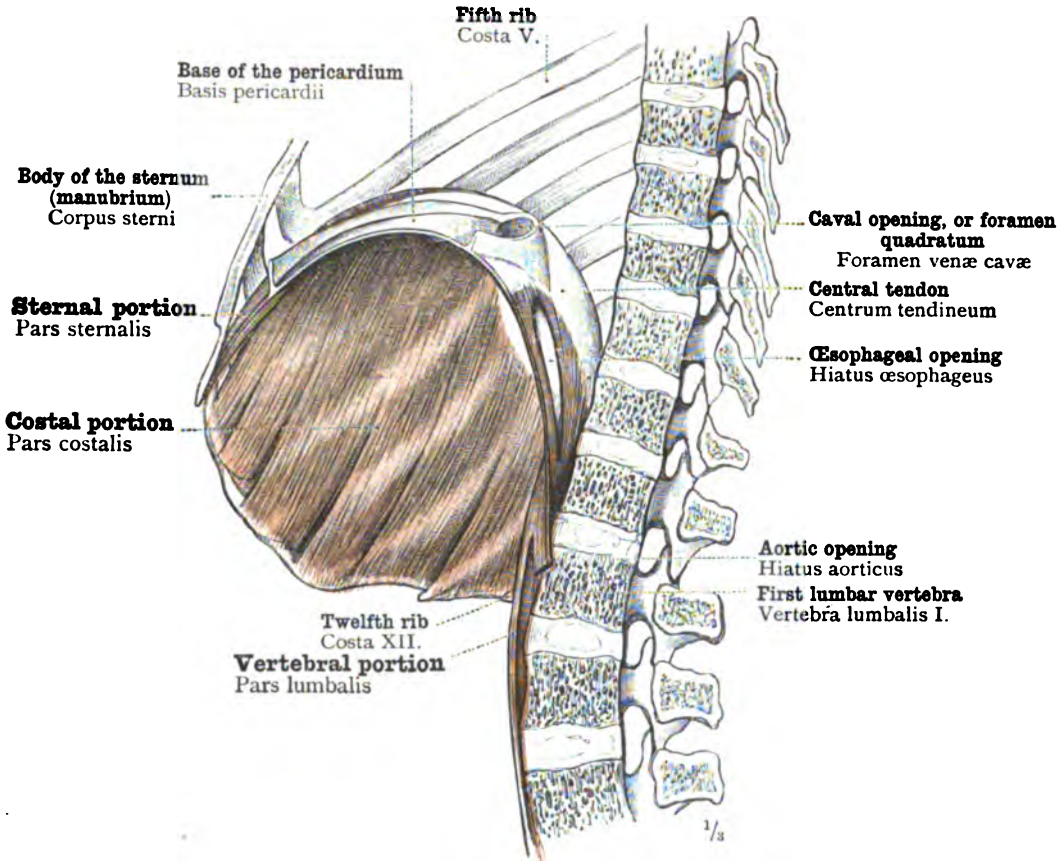


Fig. 529.—The Diaphragm in Median-Sagittal Section, the Right Half seen from Within. Drawn from a Dry Preparation.

The abdominal surface of the diaphragm was first cleaned by dissection and then given a coating of liquid plaster of Paris. When this had been allowed to harden, the thoracic surface of the muscle was exposed and similarly coated with plaster of Paris. In this manner the natural shape was as far as possible preserved.

Diaphragma—The diaphragm, or midriff.

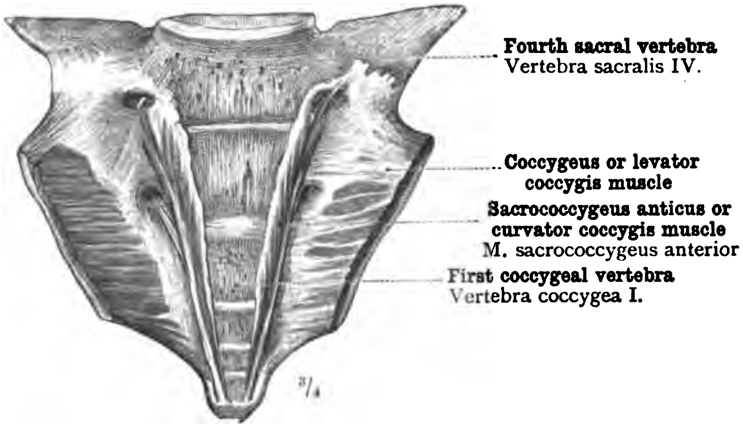

Fourth sacral vertebra
Vertebra sacralis IV.
Coccygeus or levator coccygis muscle
Sacrococcygeus anticus or curvator coccygis muscle
M. sacrococcygeus anterior
First coccygeal vertebra
Vertebra coccygea I.
3/4

FIG. 530.—MUSCULUS SACROCOCCYGEUS ANTERIOR, SACROCOCCYGEUS ANTICUS OR CURVATOR COCCYGIS MUSCLE.

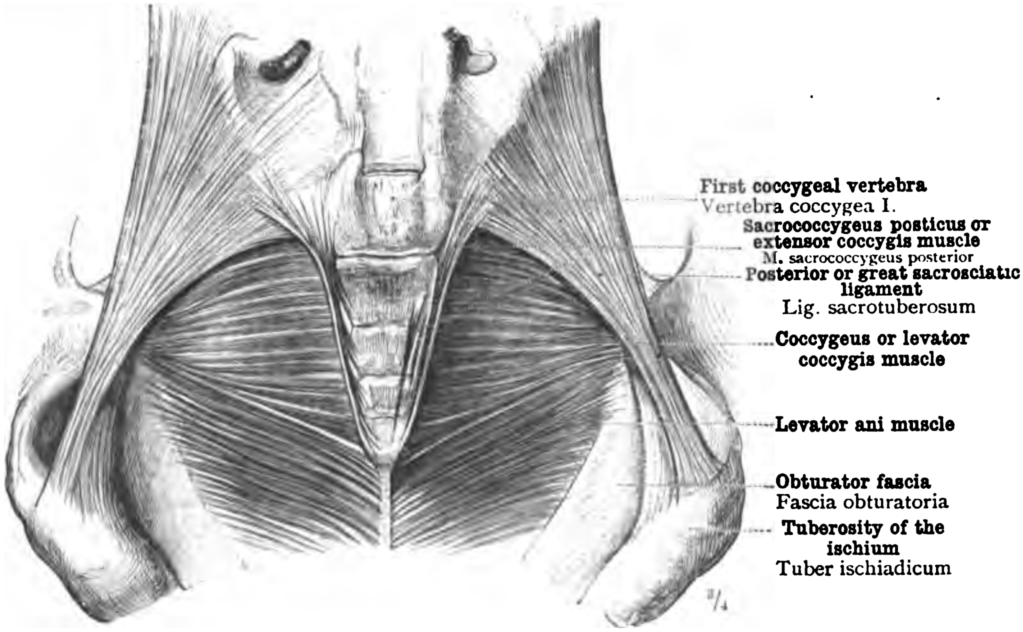

First coccygeal vertebra
Vertebra coccygea I.
Sacrococcygeus posticus or extensor coccygis muscle
M. sacrococcygeus posterior
Posterior or great sacrosciatic ligament
Lig. sacrotuberosum
Coccygeus or levator coccygis muscle
Levator ani muscle
Obturator fascia
Fascia obturatoria
Tuberosity of the ischium
Tuber ischiadicum
3/4

FIG. 531.—MUSCULUS SACROCOCCYGEUS POSTERIOR, SACROCOCCYGEUS POSTICUS OR EXTENSOR COCCYGIS MUSCLE; COCCYGEUS OR LEVATOR COCCYGIS MUSCLE.

Musculi sacrococcygei—Sacrococcygeal muscles.

MUSCULI COLLI ET CAPITIS

THE MUSCLES OF THE HEAD AND NECK

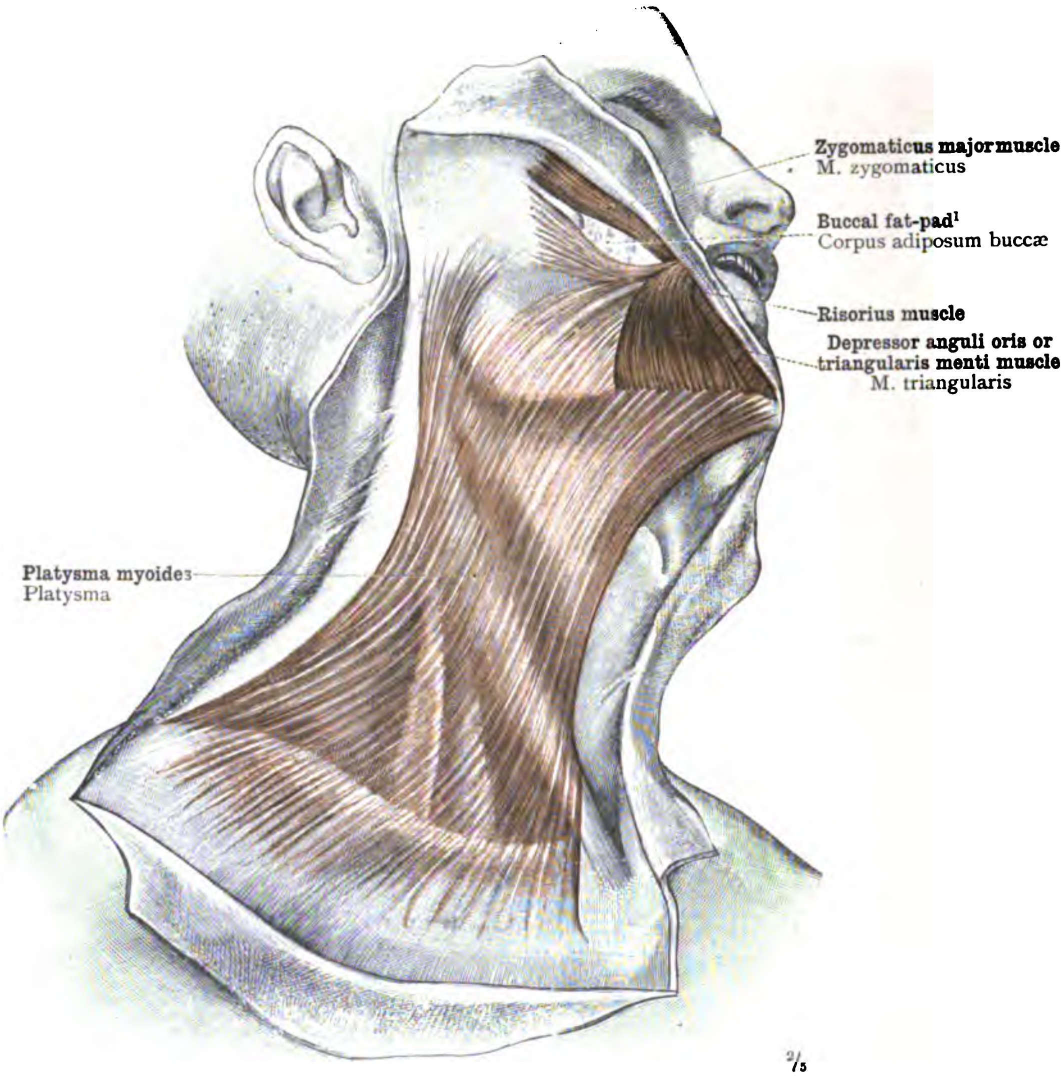


FIG. 532.—THE PLATYSMA MYOIDES OF THE RIGHT SIDE.

Musculi colli—Muscles of the neck.

---

[1] Sometimes, but inappropriately, named the *sucking-pad.*—TR.

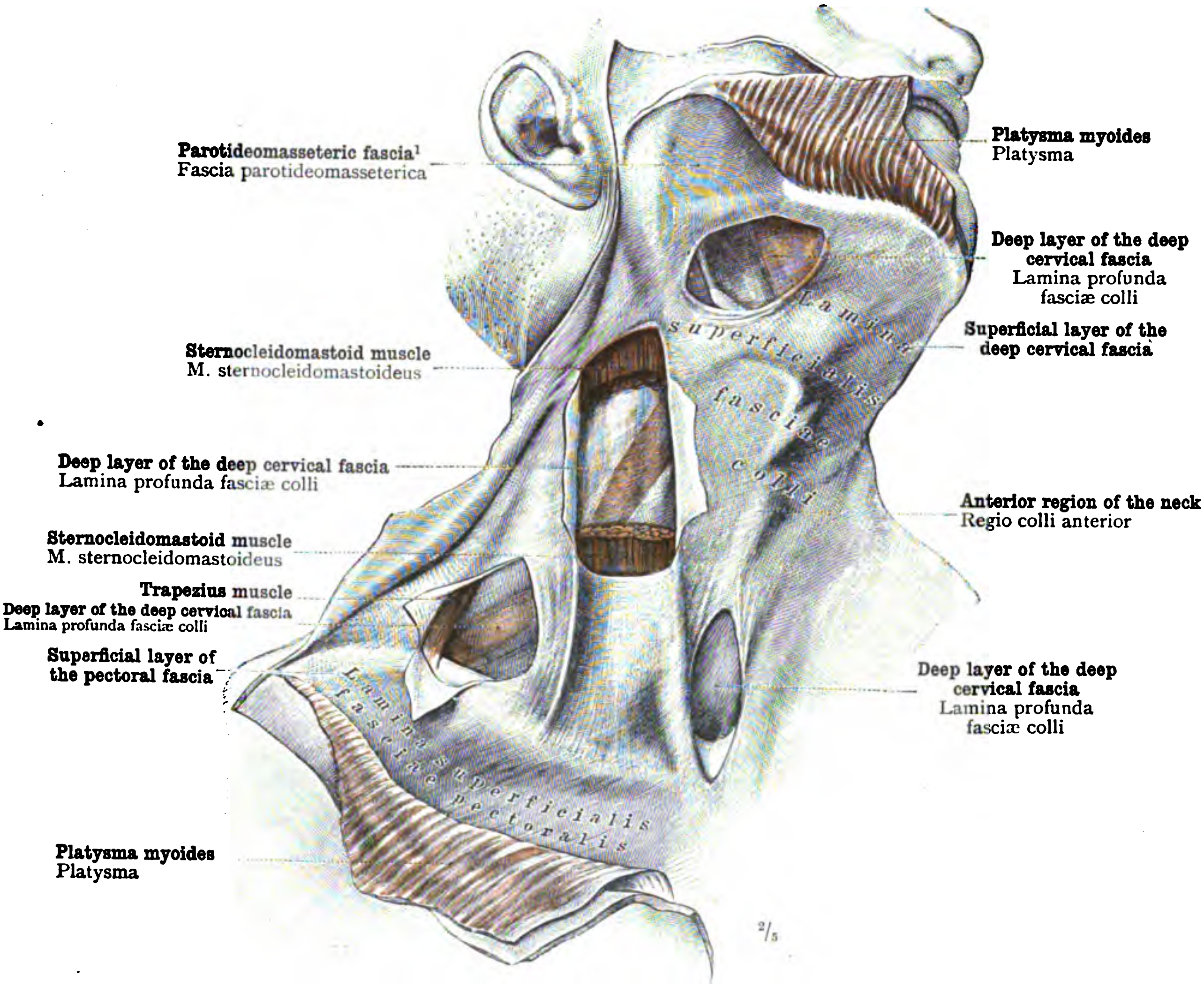

Parotideomasseteric fascia[1]
Fascia parotideomasseterica
Sternocleidomastoid muscle
M. sternocleidomastoideus
Deep layer of the deep cervical fascia
Lamina profunda fasciæ colli
Sternocleidomastoid muscle
M. sternocleidomastoideus
Trapezius muscle
Deep layer of the deep cervical fascia
Lamina profunda fasciæ colli
Superficial layer of the pectoral fascia
Platysma myoides
Platysma
Platysma myoides
Platysma
Deep layer of the deep cervical fascia
Lamina profunda fasciæ colli
Superficial layer of the deep cervical fascia
Anterior region of the neck
Regio colli anterior
Deep layer of the deep cervical fascia
Lamina profunda fasciæ colli
Lamina superficialis fasciae colli
Lamina superficialis fasciae pectoralis
2/5

FIG. 533.—FASCIA COLLI, THE DEEP CERVICAL FASCIA, DISPLAYED ON THE RIGHT SIDE OF THE NECK BY THE REMOVAL OF THE PLATYSMA MYOIDES.

In those places in which the deep layer of the fascia is clearly differentiated from the superficial layer, the latter has been partially removed. The submaxillary gland has been taken away, and the middle portion of the sternocleidomastoid muscle has been cut out, to lay bare in each case the deep layer of the fascia; between the cut ends of the sternocleidomastoid, and between the lower portion of this muscle and the trapezius, the anterior and posterior bellies respectively of the omohyoid muscle are visible beneath the deep layer of the fascia.

Musculi colli—Muscles of the neck.

---

[1] In England, the portion of the deep cervical fascia covering the parotid gland is usually distinguished as the *parotid fascia;* that covering the masseter muscle, as the *masseteric fascia.*—TR.

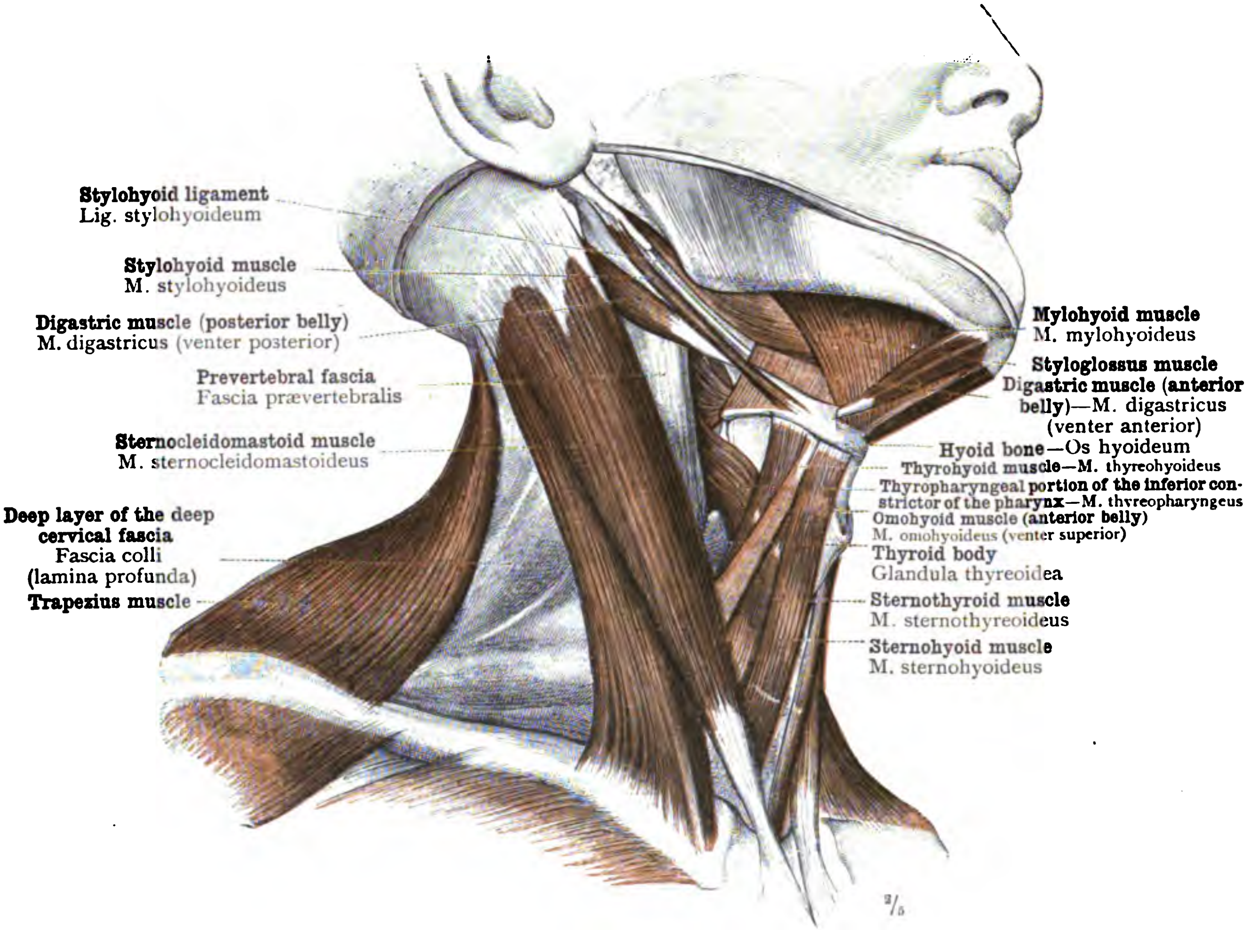
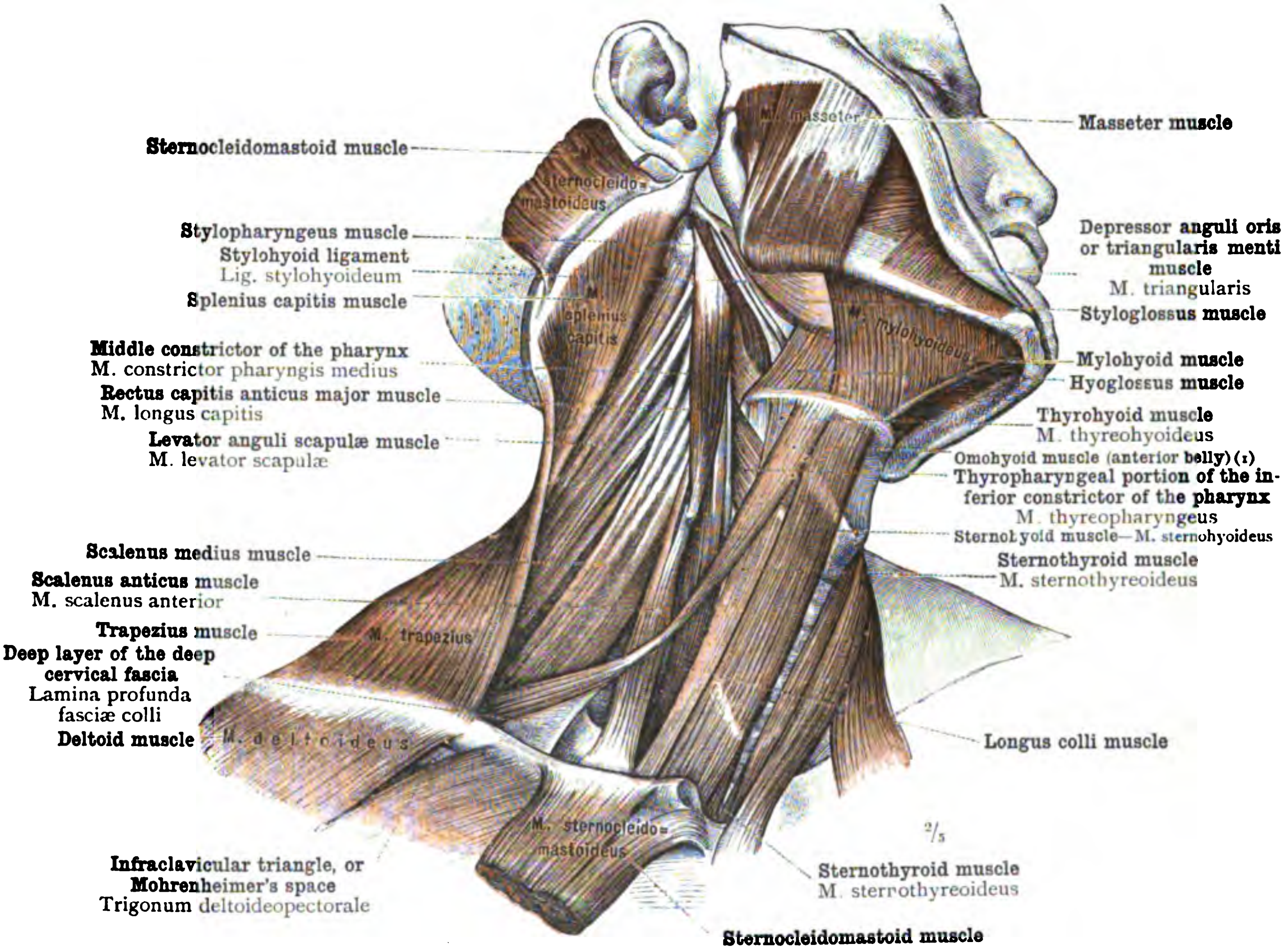

Stylohyoid ligament
Lig. stylohyoideum
Stylohyoid muscle
M. stylohyoideus
Digastric muscle (posterior belly)
M. digastricus (venter posterior)
Prevertebral fascia
Fascia prævertebralis
Sternocleidomastoid muscle
M. sternocleidomastoideus
Deep layer of the deep cervical fascia
Fascia colli (lamina profunda)
Trapezius muscle
Mylohyoid muscle
M. mylohyoideus
Styloglossus muscle
Digastric muscle (anterior belly)—M. digastricus (venter anterior)
Hyoid bone—Os hyoideum
Thyrohyoid muscle—M. thyreohyoideus
Thyropharyngeal portion of the inferior constrictor of the pharynx—M. thyreopharyngeus
Omohyoid muscle (anterior belly)
M. omohyoideus (venter superior)
Thyroid body
Glandula thyreoidea
Sternothyroid muscle
M. sternothyreoideus
Sternohyoid muscle
M. sternohyoideus
2/5

FIG. 534.—THE MUSCLES OF THE FRONT OF THE NECK, SHOWN ON THE RIGHT SIDE OF THE BODY. M. STERNOCLEIDOMASTOIDEUS, STERNOCLEIDOMASTOID MUSCLE; M. DIGASTRICUS, DIGASTRIC MUSCLE; THE RELATIONS OF THE LATTER TO THE STYLOHYOID AND MYLOHYOID MUSCLES. PORTIONS OF THE MUSCLES ARISING FROM THE STYLOID PROCESS, OF THE LOWER MUSCLES OF THE TONGUE, AND OF THE TRAPEZIUS MUSCLE, ARE DISPLAYED.

In the preparation of the muscles both the superficial and the deep layers of the deep cervical fascia have been removed, except in the posterior triangle of the neck, where the deep layer has been left intact.

Musculi colli—Muscles of the neck.


Sternocleidomastoid muscle
Stylopharyngeus muscle
Stylohyoid ligament
Lig. stylohyoideum
Splenius capitis muscle
Middle constrictor of the pharynx
M. constrictor pharyngis medius
Rectus capitis anticus major muscle
M. longus capitis
Levator anguli scapulæ muscle
M. levator scapulæ
Scalenus medius muscle
Scalenus anticus muscle
M. scalenus anterior
Trapezius muscle
Deep layer of the deep cervical fascia
Lamina profunda fasciæ colli
Deltoid muscle
Infraclavicular triangle, or Mohrenheimer's space
Trigonum deltoideopectorale
M. masseter
M. sternocleido-mastoideus
M. splenius capitis
M. mylohyoideus
M. trapezius
M. deltoideus
M. sternocleido-mastoideus
Masseter muscle
Depressor anguli oris or triangularis menti muscle
M. triangularis
Styloglossus muscle
Mylohyoid muscle
Hyoglossus muscle
Thyrohyoid muscle
M. thyreohyoideus
Omohyoid muscle (anterior belly) (1)
Thyropharyngeal portion of the inferior constrictor of the pharynx
M. thyreopharyngeus
Sternohyoid muscle—M. sternohyoideus
Sternothyroid muscle
M. sternothyreoideus
Longus colli muscle
2/5
Sternothyroid muscle
M. sterrothyreoideus
Sternocleidomastoid muscle

(1) M. omohyoideus (venter superior)

Fig. 535.—The Muscles of the Neck, displayed on the Right Side, the Sternocleidomastoid, Digastric, and Stylohyoid Muscles having been removed. The Infrahyoid Group of Muscles, Sternohyoid, Sternothyroid, Thyrohyoid, and Omohyoid. The Mylohyoid Muscle, the Anterior and Middle Scalene Muscles, and the Levator Anguli Scapulæ; Portions of the Muscles of the Face, and of the Deep Lateral and Prevertebral Muscles of the Neck.

Musculi colli—Muscles of the neck.

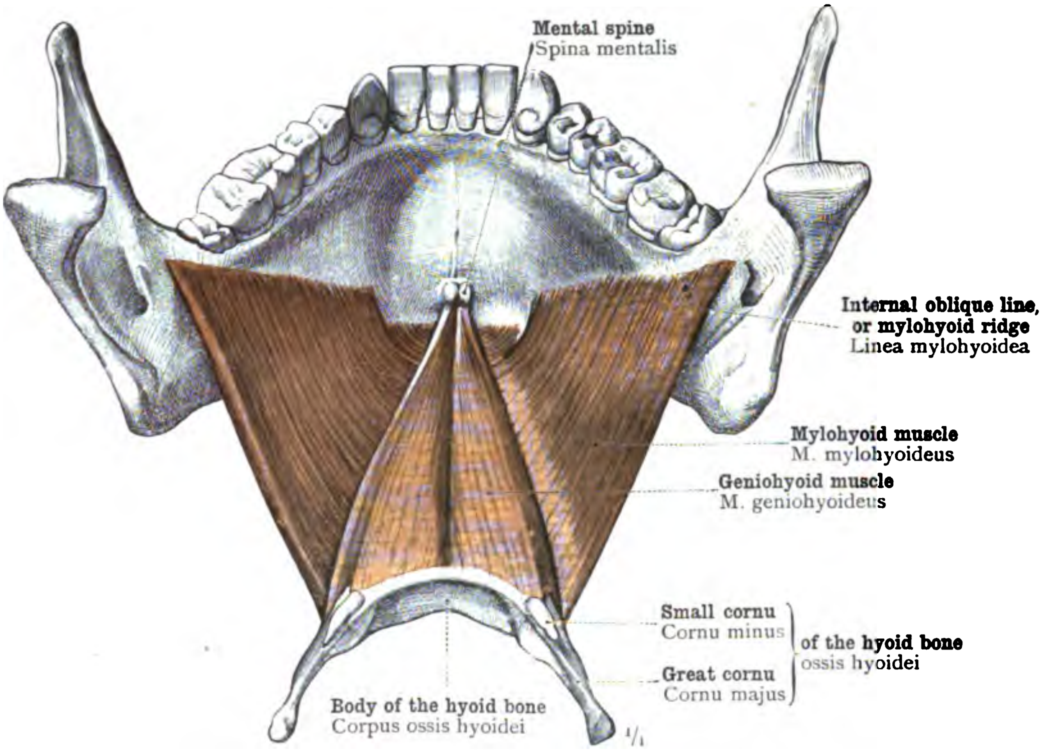


FIG. 536.—M. MYLOHYOIDEUS, THE MYLOHYOID MUSCLE, THE MUSCLES OF THE RIGHT AND LEFT SIDE TOGETHER FORMING A FLOOR BELOW THE ANTERIOR PART OF THE MOUTH, THE DIAPHRAGMA ORIS, AND THE GENIOHYOID MUSCLE, SEEN FROM ABOVE AND BEHIND

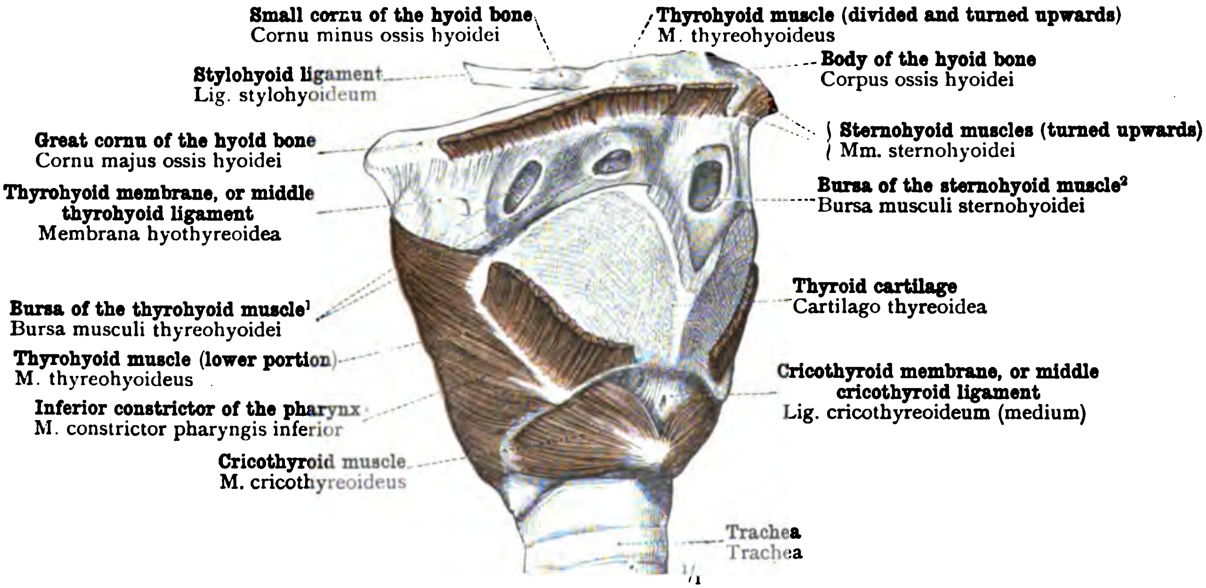

Small cornu of the hyoid bone
Cornu minus ossis hyoidei
Thyrohyoid muscle (divided and turned upwards)
M. thyreohyoideus
Stylohyoid ligament
Lig. stylohyoideum
Body of the hyoid bone
Corpus ossis hyoidei
Great cornu of the hyoid bone
Cornu majus ossis hyoidei
Sternohyoid muscles (turned upwards)
Mm. sternohyoidei
Thyrohyoid membrane, or middle thyrohyoid ligament
Membrana hyothyreoidea
Bursa of the sternohyoid muscle[2]
Bursa musculi sternohyoidei
Bursa of the thyrohyoid muscle[1]
Bursa musculi thyreohyoidei
Thyroid cartilage
Cartilago thyreoidea
Thyrohyoid muscle (lower portion)
M. thyreohyoideus
Cricothyroid membrane, or middle cricothyroid ligament
Lig. cricothyreoideum (medium)
Inferior constrictor of the pharynx
M. constrictor pharyngis inferior
Cricothyroid muscle
M. cricothyreoideus
Trachea
Trachea
1/1

FIG. 537.—THE BURSÆ BELOW THE HYOID BONE. THE STERNOHYOID AND THYROHYOID MUSCLES HAVE BEEN DIVIDED TRANSVERSELY, AND THE PORTIONS OF THESE MUSCLES LEFT ATTACHED TO THE HYOID BONE HAVE BEEN TURNED UPWARDS. SEEN OBLIQUELY FROM THE RIGHT SIDE AND BEFORE.

Musculi colli—Muscles of the neck.

---

[1] The *bursa of the thyrohyoid muscle*, either single or double (the latter in the present instance), is situate beneath the thyrohyoid muscle on the anterier surface of the thyrohyoid membrane, external to the bursa of the sternohyoid muscle.—TR.

[2] The *bursa of the sternohyoid muscle* is situate beneath the upper extremity of the sternohyoid muscle and in front of the thyrohyoid membrane, close to the median line.—TR.

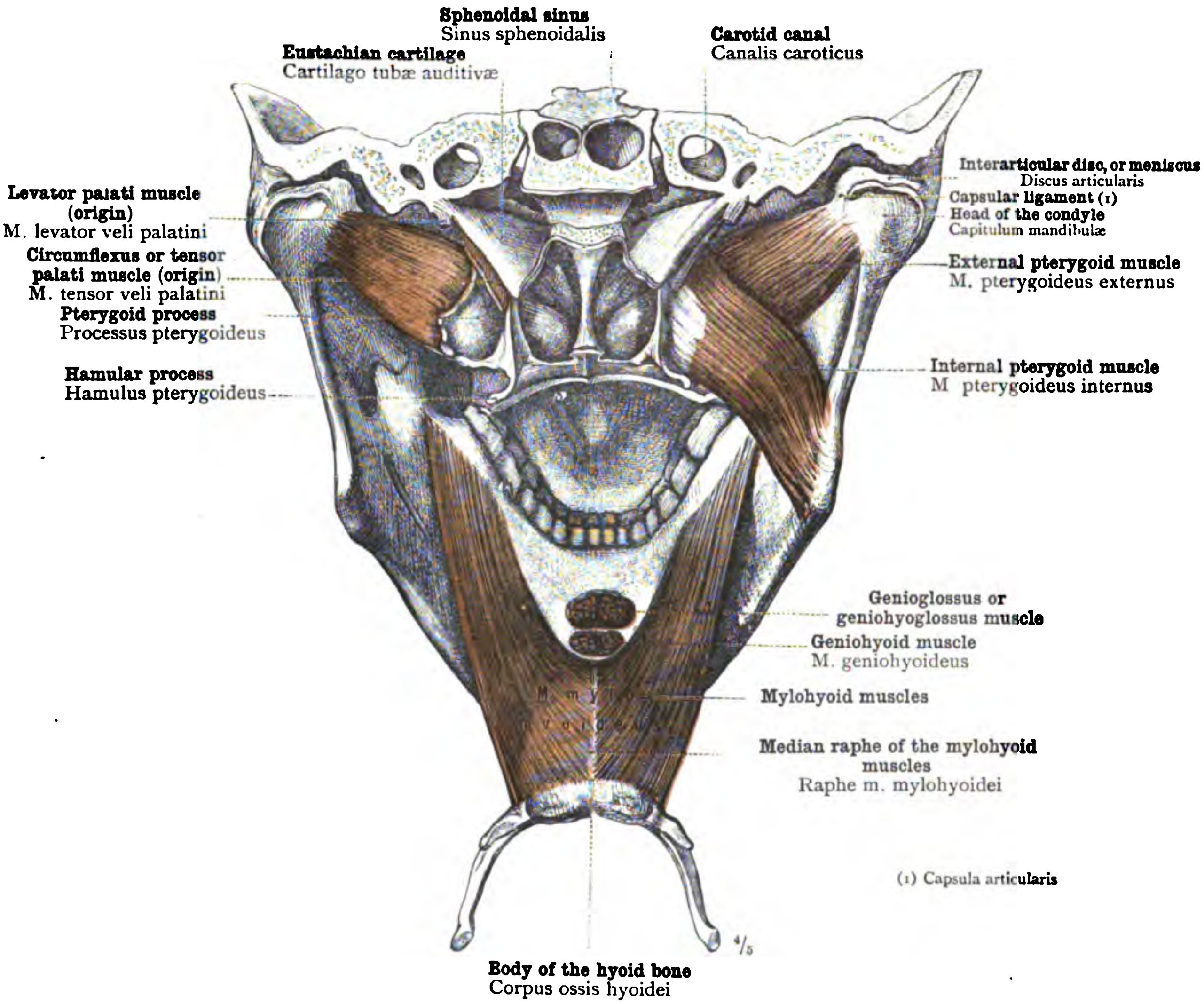


FIG. 538.—M. MYLOHYOIDEUS, THE MYLOHYOID MUSCLE, THE RIGHT AND LEFT MUSCLES FORMING THE DIAPHRAGMA ORIS, SEEN FROM ABOVE AND BEHIND. THE PTERYGOID MUSCLES, EXTERNAL AND INTERNAL, ARE DISPLAYED, BOTH INTACT ON THE RIGHT SIDE, WHILE ON THE LEFT SIDE THE INTERNAL PTERYGOID MUSCLE HAS BEEN REMOVED IN ORDER TO LAY BARE IN ITS WHOLE EXTENT THE POSTERIOR SURFACE OF THE EXTERNAL PTERYGOID MUSCLE.

The levator palati and the circumflexus or tensor palati muscles have been cut away close to their respective origins.

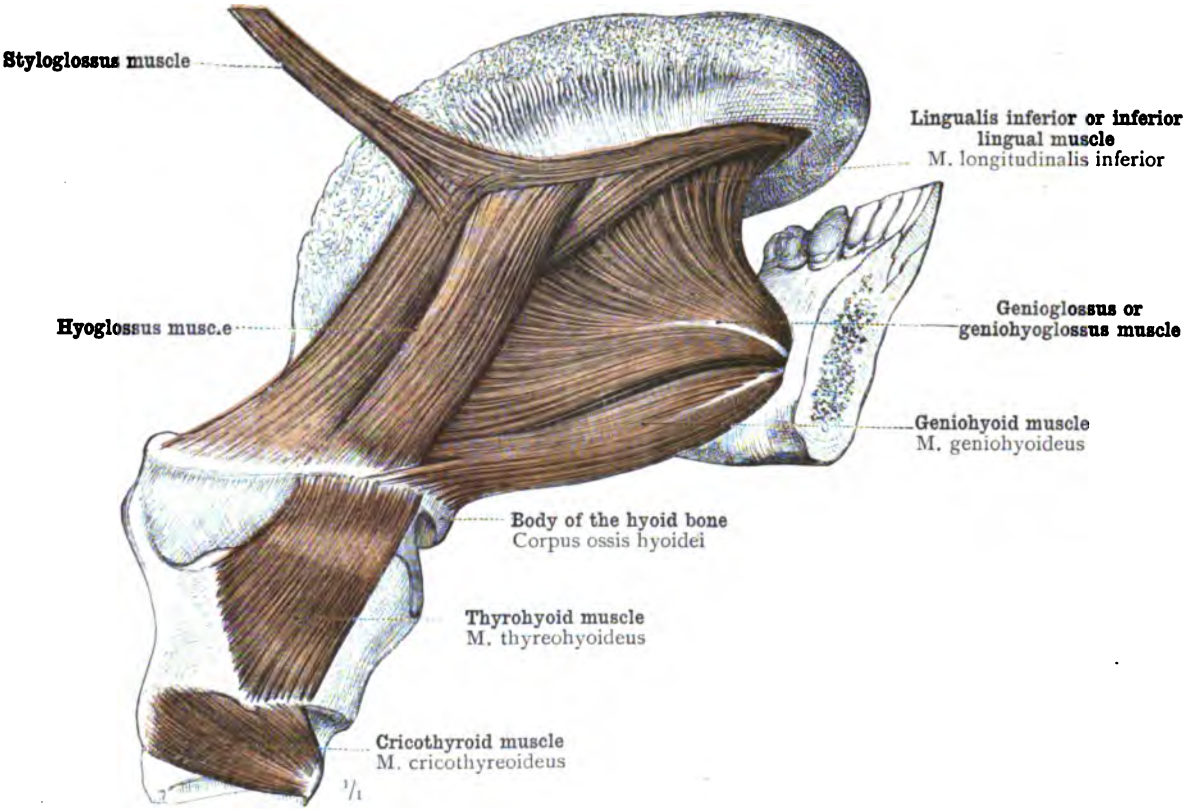


FIG. 539.—THE MUSCLES OF THE TONGUE, WITH THE GENIOHYOID MUSCLE, SEEN FROM THE RIGHT SIDE: THE HYOGLOSSUS, THE STYLOGLOSSUS, AND THE GENIOGLOSSUS OR GENIOHYOGLOSSUS MUSCLES. ALSO THE THYROHYOID AND CRICOTHYROID MUSCLES.

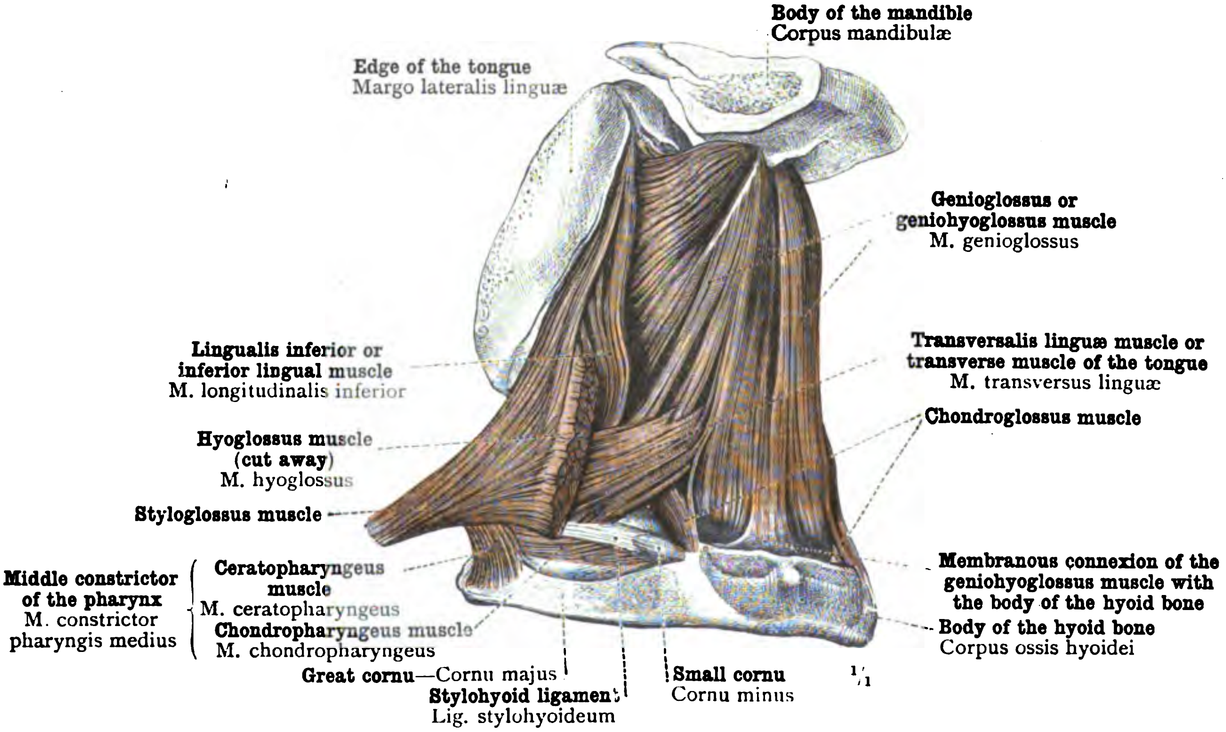


FIG. 540.—THE MUSCLES OF THE TONGUE SEEN FROM THE RIGHT SIDE AND BELOW, DISPLAYED BY THE REMOVAL OF THE HYOGLOSSUS MUSCLE: M. LONGITUDINALIS INFERIOR, THE INFERIOR LINGUAL MUSCLE; M. TRANSVERSUS (VEL TRANSVERSALIS) LINGUÆ, THE TRANSVERSE MUSCLE OF THE TONGUE, AND ITS RELATION TO THE GENIOHYOGLOSSUS MUSCLE; THE CHONDROGLOSSUS MUSCLE.

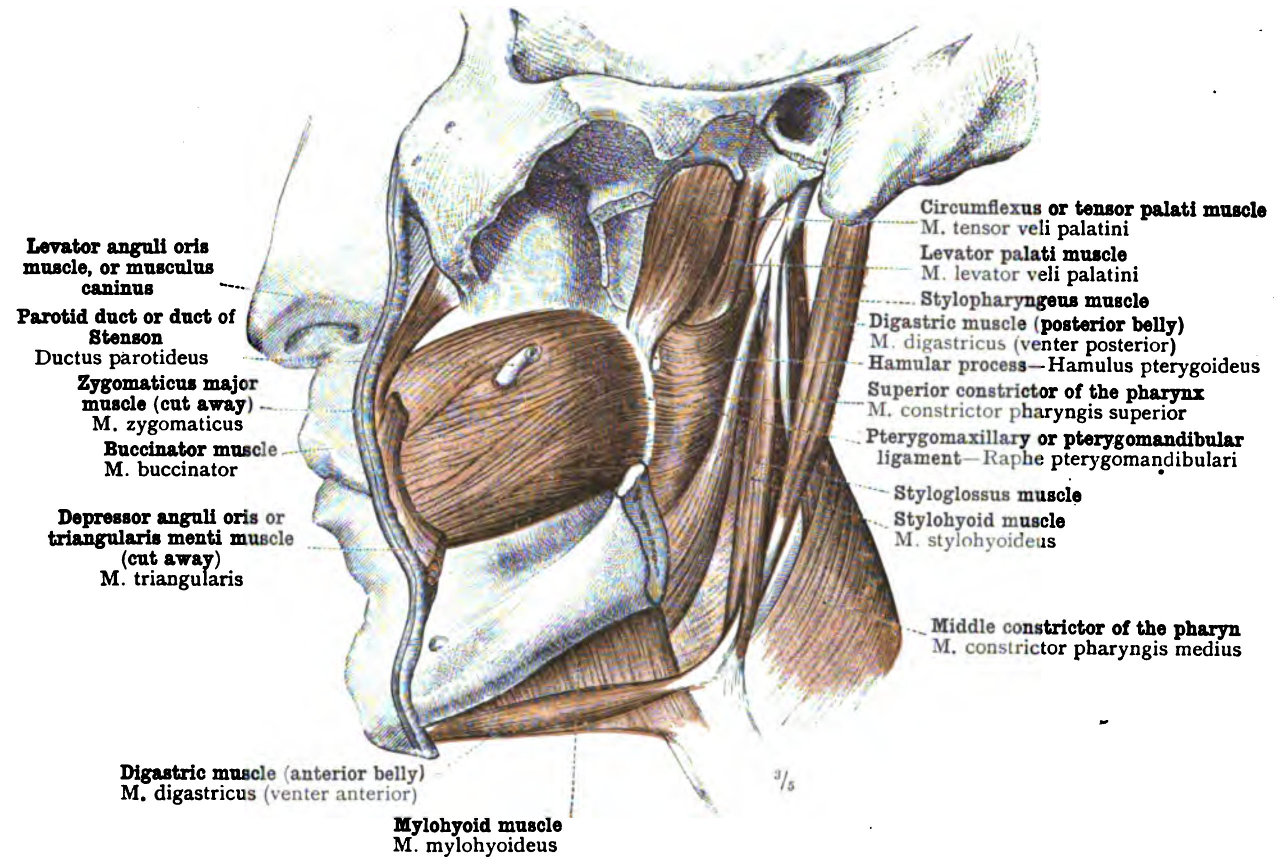

Levator anguli oris muscle, or musculus caninus
Parotid duct or duct of Stenson
Ductus parotideus
Zygomaticus major muscle (cut away)
M. zygomaticus
Buccinator muscle
M. buccinator
Depressor anguli oris or triangularis menti muscle (cut away)
M. triangularis
Digastric muscle (anterior belly)
M. digastricus (venter anterior)
Mylohyoid muscle
M. mylohyoideus
3/5
Circumflexus or tensor palati muscle
M. tensor veli palatini
Levator palati muscle
M. levator veli palatini
Stylopharyngeus muscle
Digastric muscle (posterior belly)
M. digastricus (venter posterior)
Hamular process—Hamulus pterygoideus
Superior constrictor of the pharynx
M. constrictor pharyngis superior
Pterygomaxillary or pterygomandibular ligament—Raphe pterygomandibulari
Styloglossus muscle
Stylohyoid muscle
M. stylohyoideus
Middle constrictor of the pharyn
M. constrictor pharyngis medius

FIG. 541.—THE MUSCLES ARISING FROM THE STYLOID PROCESS WITH THE DIGASTRIC MUSCLE; THE CIRCUMFLEXUS OR TENSOR PALATI, THE LEVATOR PALATI, AND THE BUCCINATOR MUSCLE; SEEN FROM THE LEFT SIDE.

The ramus of the jaw has been removed.

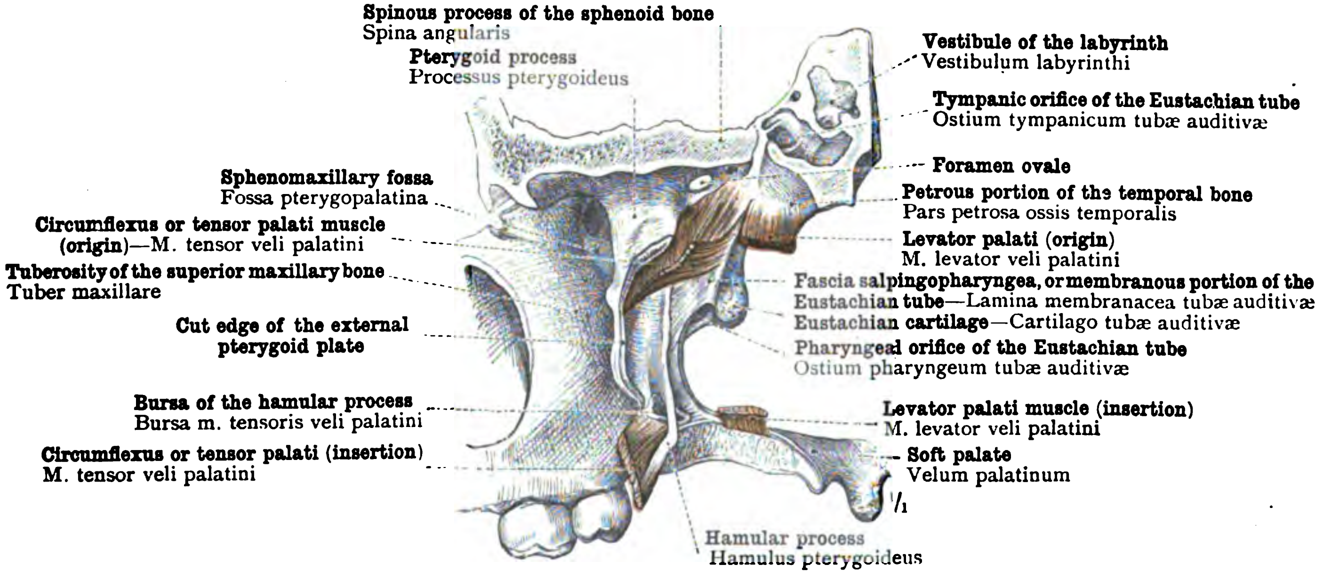

Spinous process of the sphenoid bone
Spina angularis
Pterygoid process
Processus pterygoideus
Sphenomaxillary fossa
Fossa pterygopalatina
Circumflexus or tensor palati muscle (origin)—M. tensor veli palatini
Tuberosity of the superior maxillary bone
Tuber maxillare
Cut edge of the external pterygoid plate
Bursa of the hamular process
Bursa m. tensoris veli palatini
Circumflexus or tensor palati (insertion)
M. tensor veli palatini
Hamular process
Hamulus pterygoideus
Vestibule of the labyrinth
Vestibulum labyrinthi
Tympanic orifice of the Eustachian tube
Ostium tympanicum tubæ auditivæ
Foramen ovale
Petrous portion of the temporal bone
Pars petrosa ossis temporalis
Levator palati (origin)
M. levator veli palatini
Fascia salpingopharyngea, or membranous portion of the Eustachian tube—Lamina membranacea tubæ auditivæ
Eustachian cartilage—Cartilago tubæ auditivæ
Pharyngeal orifice of the Eustachian tube
Ostium pharyngeum tubæ auditivæ
Levator palati muscle (insertion)
M. levator veli palatini
Soft palate
Velum palatinum
1/1

FIG. 542.—ORIGIN AND INSERTION OF THE CIRCUMFLEXUS OR TENSOR PALATI MUSCLE AND OF THE LEVATOR PALATI MUSCLE, WITH THE SYNOVIAL BURSA OF THE HAMULAR PROCESS, SEEN FROM THE LEFT SIDE.

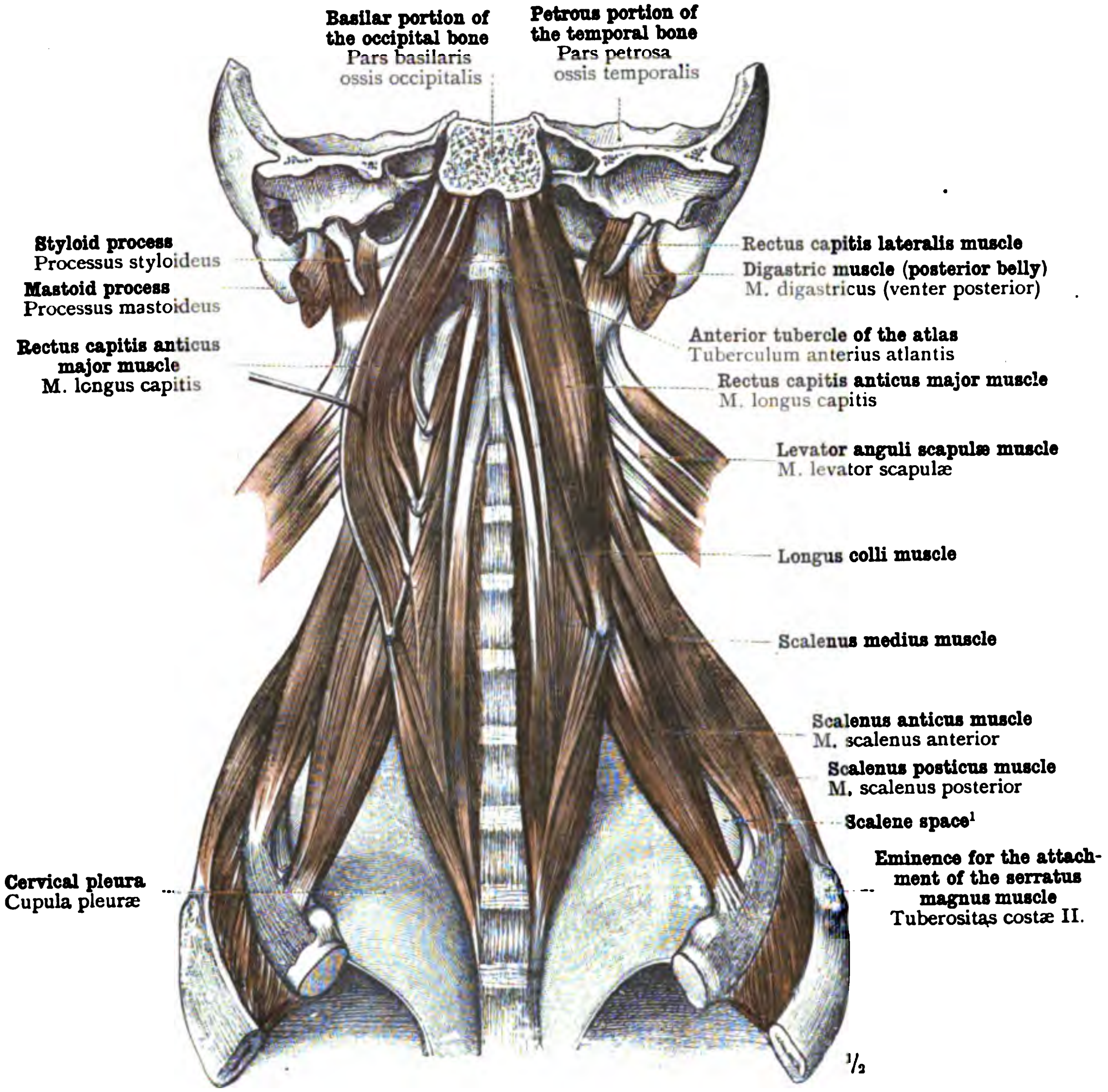
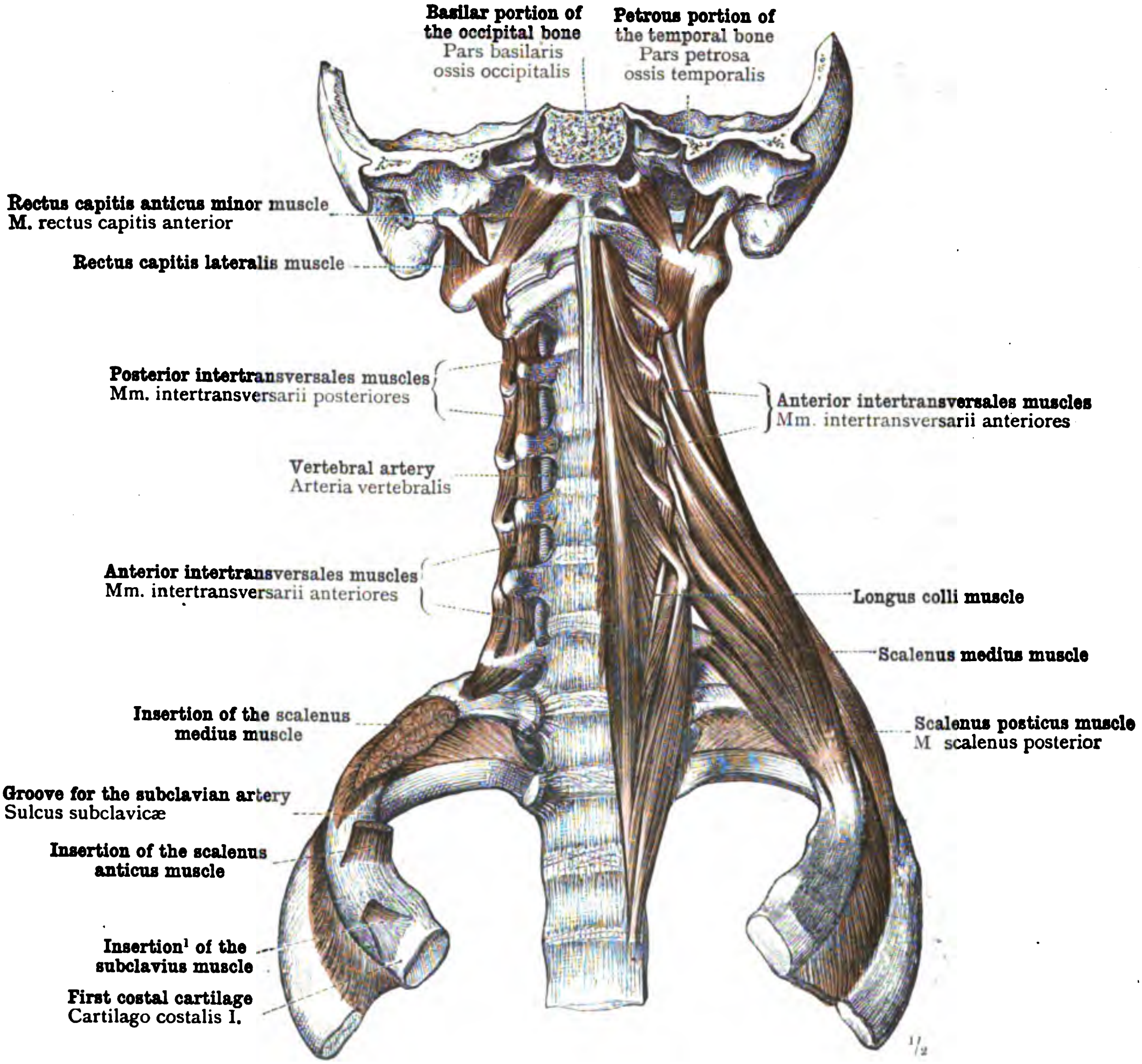

Basilar portion of the occipital bone
Pars basilaris ossis occipitalis
Petrous portion of the temporal bone
Pars petrosa ossis temporalis
Styloid process
Processus styloideus
Mastoid process
Processus mastoideus
Rectus capitis anticus major muscle
M. longus capitis
Rectus capitis lateralis muscle
Digastric muscle (posterior belly)
M. digastricus (venter posterior)
Anterior tubercle of the atlas
Tuberculum anterius atlantis
Rectus capitis anticus major muscle
M. longus capitis
Levator anguli scapulæ muscle
M. levator scapulæ
Longus colli muscle
Scalenus medius muscle
Scalenus anticus muscle
M. scalenus anterior
Scalenus posticus muscle
M. scalenus posterior
Scalene space[1]
Eminence for the attachment of the serratus magnus muscle
Tuberositas costæ II.
Cervical pleura
Cupula pleuræ
1/2

FIG. 543.—THE DEEP LATERAL AND PREVERTEBRAL MUSCLES OF THE NECK, DISPLAYED BY THE REMOVAL OF THE FACIAL PORTION OF THE SKULL AND THE CERVICAL VISCERA. SEEN FROM BEFORE. SCALENUS ANTICUS, MEDIUS, AND POSTICUS MUSCLES; LONGUS COLLI MUSCLE; RECTUS CAPITIS ANTICUS MAJOR MUSCLE. THE RELATION OF THE SCALENE MUSCLES AND THE LONGUS COLLI MUSCLE TO THE CERVICAL PLEURA. THE SCALENE SPACE.[1]

---

[1] See note to p. 277.

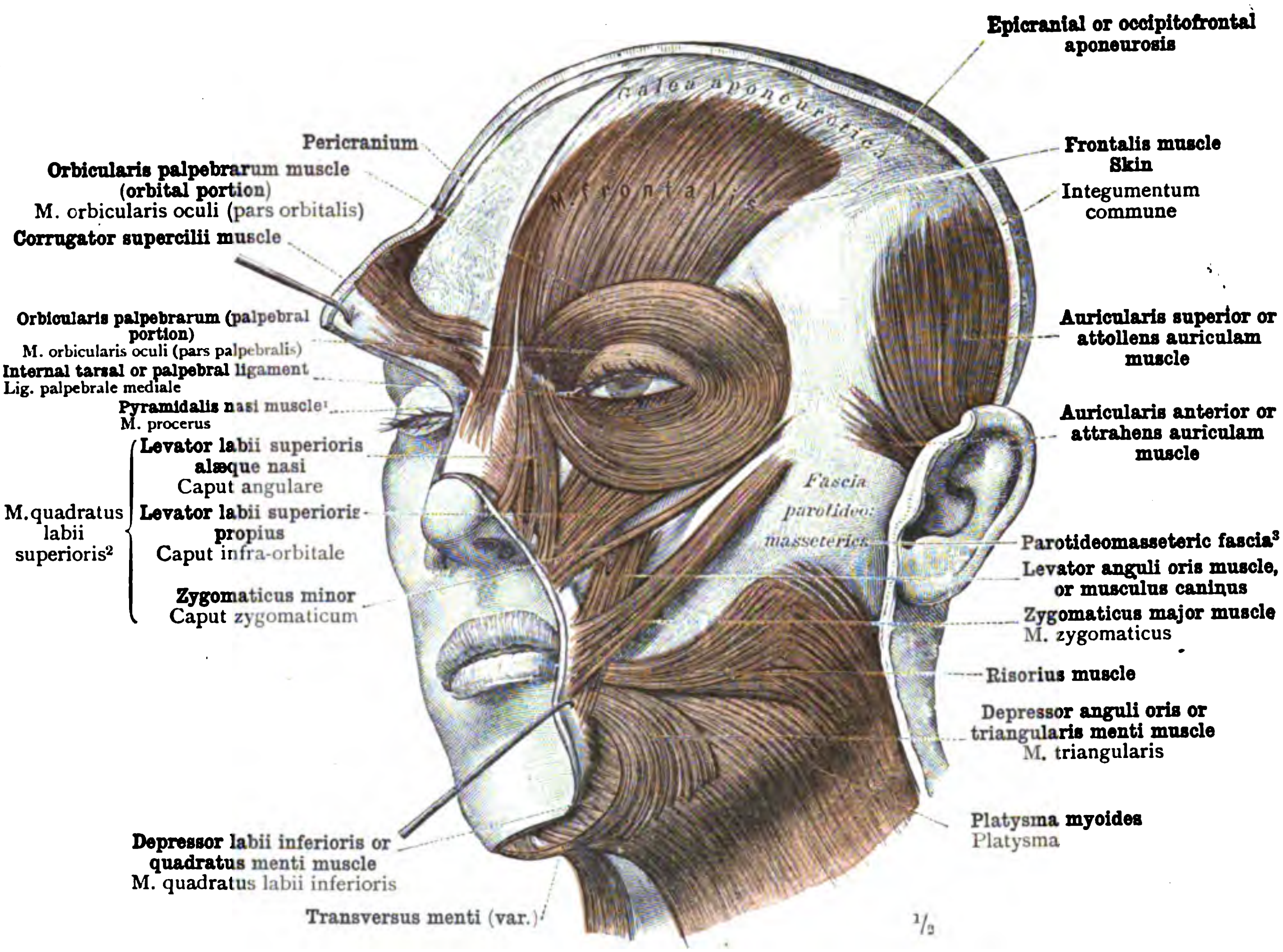
Musculi colli—Muscles of the neck.


Basilar portion of the occipital bone
Pars basilaris ossis occipitalis
Petrous portion of the temporal bone
Pars petrosa ossis temporalis
Rectus capitis anticus minor muscle
M. rectus capitis anterior
Rectus capitis lateralis muscle
Posterior intertransversales muscles
Mm. intertransversarii posteriores
Vertebral artery
Arteria vertebralis
Anterior intertransversales muscles
Mm. intertransversarii anteriores
Insertion of the scalenus medius muscle
Groove for the subclavian artery
Sulcus subclavicæ
Insertion of the scalenus anticus muscle
Insertion[1] of the subclavius muscle
First costal cartilage
Cartilago costalis I.
Anterior intertransversales muscles
Mm. intertransversarii anteriores
Longus colli muscle
Scalenus medius muscle
Scalenus posticus muscle
M. scalenus posterior
1/2

[1] English anatomists regard this as the *origin* of the subclavius muscle.—Tr.

Fig. 544.—The Deep Lateral and Prevertebral Muscles of the Neck, the Rectus Capitis Anticus Major and Scalenus Anticus Muscles having been removed. On the Right Side the Longus Colli and the Scalenus Medius and Posticus Muscles have also been removed. Seen from Before. Intertransversales Muscles; Rectus Capitis Anticus Minor and Rectus Capitis Lateralis Muscles.

Musculi colli—Muscles of the neck.


Pericranium
Orbicularis palpebrarum muscle (orbital portion)
M. orbicularis oculi (pars orbitalis)
Corrugator supercilii muscle
Orbicularis palpebrarum (palpebral portion)
M. orbicularis oculi (pars palpebralis)
Internal tarsal or palpebral ligament
Lig. palpebrale mediale
Pyramidalis nasi muscle[1]
M. procerus
M. quadratus labii superioris[2]
Levator labii superioris alæque nasi
Caput angulare
Levator labii superioris propius
Caput infra-orbitale
Zygomaticus minor
Caput zygomaticum
Depressor labii inferioris or quadratus menti muscle
M. quadratus labii inferioris
Transversus menti (var.)
Epicranial or occipitofrontal aponeurosis
Frontalis muscle
Skin
Integumentum commune
Auricularis superior or attollens auriculam muscle
Auricularis anterior or attrahens auriculam muscle
Parotideomasseteric fascia[3]
Levator anguli oris muscle, or musculus caninus
Zygomaticus major muscle
M. zygomaticus
Risorius muscle
Depressor anguli oris or triangularis menti muscle
M. triangularis
Platysma myoides
Platysma
Galea aponeurotica
M. frontalis
Fascia parotideo-masseterica
1/2

[1] The *pyramidalis nasi* muscle (*Musculus procerus*) is regarded by the author as a portion of the *occipitofrontalis* muscle.—Tr.

[2] In England the *levator labii superioris alæque nasi*, the *levator labii superioris proprius*, and the *zygomaticus minor*, are regarded as three separate muscles, not, as in the nomenclature of the German Anatomical Society, as the three heads, the *angular head*, the *infra-orbital head*, and the *zygomatic head*, respectively, of a single muscle, the *quadratus labii superioris*.—Tr.

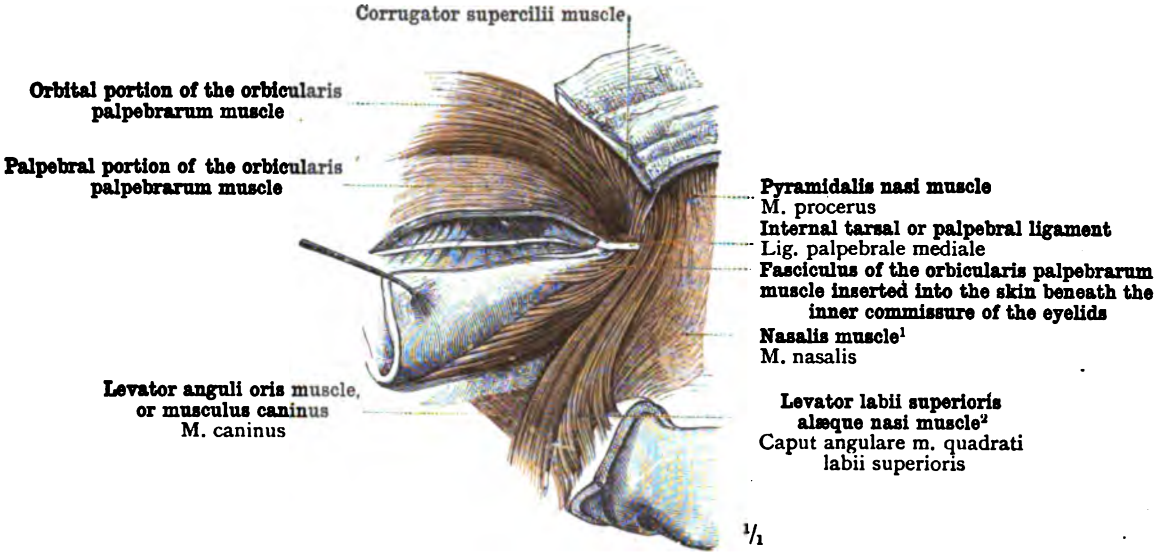
[3] See note to p. 291.

FIG. 545.—THE SUPERFICIAL LAYER OF THE MUSCLES OF FACIAL EXPRESSION AND THEIR RELATION TO THE PLATYSMA MYOIDES. DEPRESSOR ANGULI ORIS OR TRIANGULARIS MENTI MUSCLE; RISORIUS MUSCLE; ZYGOMATICUS MAJOR MUSCLE; LEVATOR LABII SUPERIORIS ALÆQUE NASI, LEVATOR LABII SUPERIORIS PROPRIUS, AND ZYGOMATICUS MINOR MUSCLES (*see note* [2] *above*); ORBICULARIS PALPEBRARUM MUSCLE. THE ANTERIOR PORTIONS OF THE OCCIPITOFRONTALIS MUSCLE—THE FRONTALIS AND THE PYRAMIDALIS NASI MUSCLES (*see note* [1] *above*). AURICULARIS SUPERIOR OR ATTOLLENS AURICULAM AND AURICULARIS ANTERIOR OR ATTRAHENS AURICULAM MUSCLES. THE EPICRANIAL APONEUROSIS; THE PERICRANIUM; THE PAROTIDEOMASSETERIC FASCIA (*see note* [3] *above*). SEEN OBLIQUELY FROM THE LEFT SIDE AND BEFORE.

Musculi faciei—Muscles of the face.[4]

---

[4] See note [1] on page 303.


Corrugator supercilii muscle
Orbital portion of the orbicularis palpebrarum muscle
Palpebral portion of the orbicularis palpebrarum muscle
Levator anguli oris muscle, or musculus caninus
M. caninus
Pyramidalis nasi muscle
M. procerus
Internal tarsal or palpebral ligament
Lig. palpebrale mediale
Fasciculus of the orbicularis palpebrarum muscle inserted into the skin beneath the inner commissure of the eyelids
Nasalis muscle[1]
M. nasalis
Levator labii superioris alæque nasi muscle[2]
Caput angulare m. quadrati labii superioris
1/1

[1] This consists of the *compressor naris* muscle and of the *outer part* of the *depressor alæ nasi* muscle of English anatomists.—Tr.

[2] See note [2] to p. 300.

Fig. 546.—The Attachment of the Orbicularis Palpebrarum Muscle in the Neighbourhood of the Inner Canthus, and its Relation to the Corrugator Supercilii Muscle, seen from Before. Right Side.

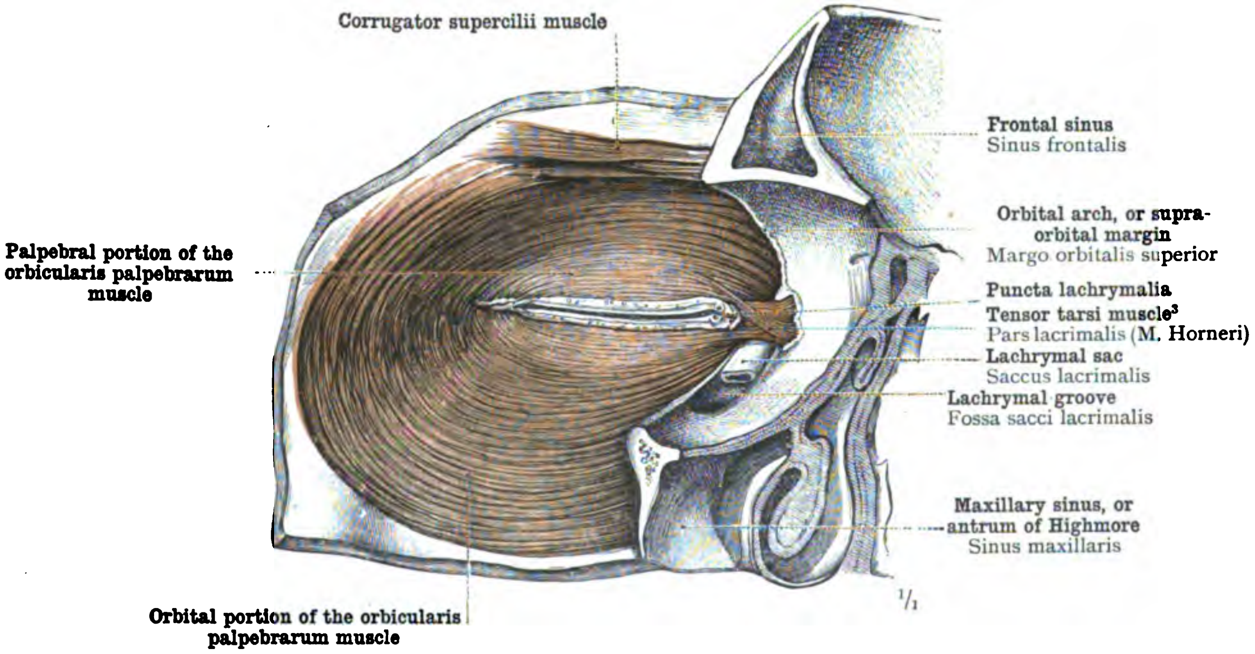

Corrugator supercilii muscle
Palpebral portion of the orbicularis palpebrarum muscle
Orbital portion of the orbicularis palpebrarum muscle
Frontal sinus
Sinus frontalis
Orbital arch, or supra-orbital margin
Margo orbitalis superior
Puncta lachrymalia
Tensor tarsi muscle[3]
Pars lacrimalis (M. Horneri)
Lachrymal sac
Saccus lacrimalis
Lachrymal groove
Fossa sacci lacrimalis
Maxillary sinus, or antrum of Highmore
Sinus maxillaris
1/1

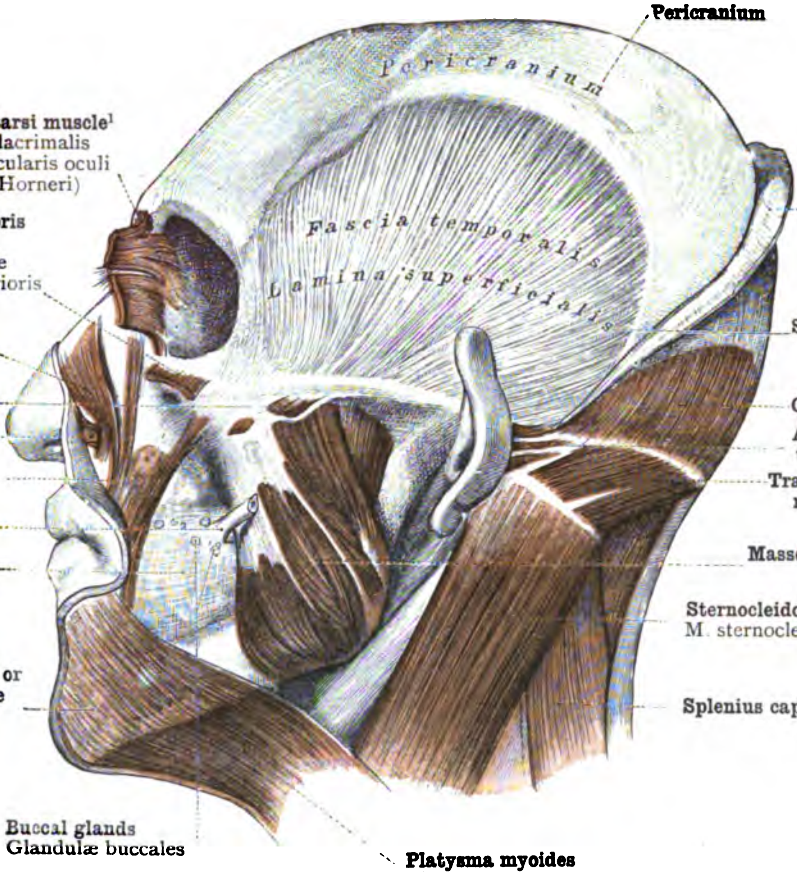
Fig. 547.—The Three Portions[4] of the Orbicularis Palpebrarum Muscle, and the Relation of this Muscle to the Corrugator Supercilii Muscle, seen from Behind. Left Side.

The soft parts in the neighbourhood of the eyelids, with the exception of the origin of the orbicularis palpebrarum muscle, have been detached from the bone; and by the removal of the conjunctiva, the tarsal cartilages, and the palpebral fascia (septum orbitale), the orbicularis muscle has been laid bare from behind.

[3] Called also *pars lachrymalis musculi orbicularis palpebrarum*, *Horner's muscle*, or *musculus sacci lachrymalis*.—Tr.

[4] These *three* portions being the *orbital*, *palpebral* and *lachrymal* portions; the last-mentioned, however, is by English anatomists usually described as a distinct muscle, the *tensor tarsi* (see also note [3]).—Tr.

M. orbicularis oculi—Orbicularis palpebrarum and tensor tarsi muscles.


Pericranium
Pericranium
Tensor tarsi muscle[1]
Pars lacrimalis
M. orbicularis oculi
(M. Horneri)
Levator labii superioris proprius[2]
Caput infra-orbitale
M. quadrati labii superioris
Compressor naris muscle
M. nasalis
(pars transversa)
Zygomaticus major muscle
M. zygomaticus
Depressor alæ nasi muscle (outer part)
M. nasalis (pars alaris)
Levator anguli oris muscle, or musculus caninus
Parotid duct or duct of Stenson—Ductus parotideus
Buccopharyngeal fascia
Fascia buccopharyngea
Depressor labii inferioris or quadratus menti muscle
M. quadratus labii inferioris
Buccal glands
Glandulæ buccales
Platysma myoides
Platysma
Fascia temporalis
Lamina superficialis
Epicranial or occipito-frontal aponeurosis
Galea aponeurotica
Superficial layer of the temporal fascia
Occipitalis muscle
Auricularis posterior or retrahens auriculam muscle
Transversus nuchæ muscle (var.)
Masseter muscle (superficial portion)
Sternocleidomastoid muscle
M. sternocleidomastoideus
Splenius capitis muscle

[1] See notes [3] and [4] on p. 301.

[2] See note [2] on p. 300.

FIG. 548.—THE DEEP LAYER OF THE MUSCLES OF FACIAL EXPRESSION WITH THE MASSETER MUSCLE, DISPLAYED BY THE REMOVAL OF THE LEVATOR LABII SUPERIORIS ALÆQUE NASI, LEVATOR LABII SUPERIORIS PROPRIUS, ZYGOMATICUS MINOR, AND THE DEPRESSOR ANGULI ORIS OR TRIANGULARIS MENTI MUSCLES, OF THE PAROTIDEOMASSETERIC FASCIA, AND OF THE PAROTID GLAND: LEVATOR ANGULI ORIS MUSCLE, OR MUSCULUS CANINUS; DEPRESSOR LABII INFERIORIS OR QUADRATUS MENTI MUSCLE; COMPRESSOR NARIS AND DEPRESSOR ALÆ NASI MUSCLES. OCCIPITALIS MUSCLE. EPICRANIAL OR OCCIPITOFRONTAL APONEUROSIS; PERICRANIUM; TEMPORAL FASCIA AND ANTERIOR PORTION OF BUCCOPHARYNGEAL FASCIA. LEFT SIDE.

Musculi faciei—Muscles of the face.[3]

---

[3] See note [1] on p. 303.

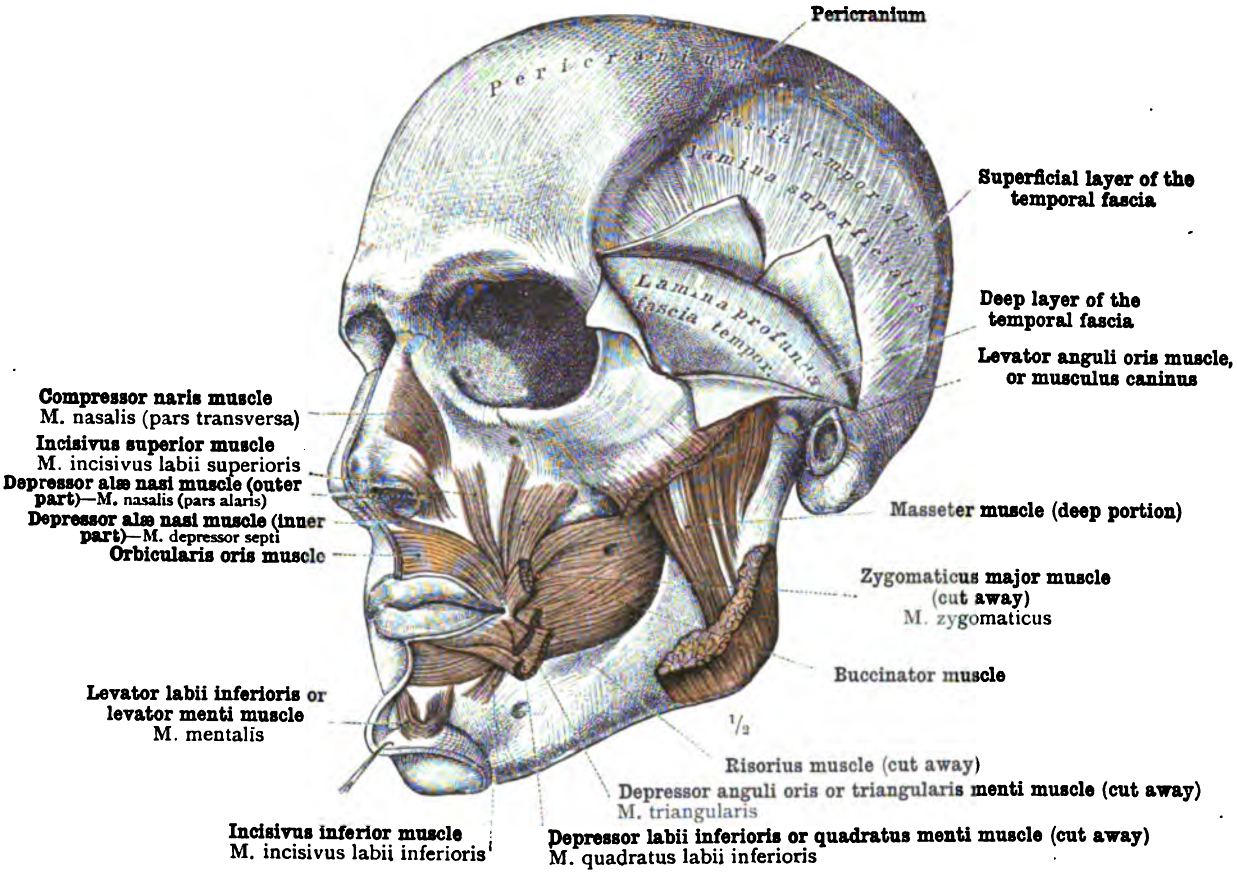

Pericranium
Pericranium
Superficial layer of the temporal fascia
Fascia temporalis lamina superficialis
Deep layer of the temporal fascia
Lamina profunda fasciæ tempor.
Levator anguli oris muscle, or musculus caninus
Compressor naris muscle
M. nasalis (pars transversa)
Incisivus superior muscle
M. incisivus labii superioris
Depressor alæ nasi muscle (outer part)—M. nasalis (pars alaris)
Depressor alæ nasi muscle (inner part)—M. depressor septi
Orbicularis oris muscle
Masseter muscle (deep portion)
Zygomaticus major muscle (cut away)
M. zygomaticus
Buccinator muscle
Levator labii inferioris or levator menti muscle
M. mentalis
1/2
Risorius muscle (cut away)
Depressor anguli oris or triangularis menti muscle (cut away)
M. triangularis
Incisivus inferior muscle
M. incisivus labii inferioris
Depressor labii inferioris or quadratus menti muscle (cut away)
M. quadratus labii inferioris

FIG. 549.—THE DEEP LAYER OF THE MUSCLES OF FACIAL EXPRESSION, AND THE RELATION OF THE ORBICULARIS ORIS MUSCLE TO THE ADJOINING MUSCLES. SEEN OBLIQUELY FROM BEFORE AND THE LEFT SIDE. BUCCINATOR MUSCLE, THE BUCCOPHARYNGEAL FASCIA HAVING BEEN DISSECTED OFF; ACCESSORY SLIPS OF THE ORBICULARIS ORIS MUSCLE KNOWN RESPECTIVELY AS INCISIVUS SUPERIOR AND INCISIVUS INFERIOR MUSCLES; LEVATOR LABII INFERIORIS OR LEVATOR MENTI MUSCLE; COMPRESSOR NARIS MUSCLE[1]; DEPRESSOR ALÆ NASI MUSCLE[1]; LEVATOR ANGULI ORIS MUSCLE, OR MUSCULUS CANINUS. THE DEEP PORTION OF THE MASSETER MUSCLE, DISPLAYED BY THE PARTIAL REMOVAL OF THE LARGER SUPERFICIAL PORTION. PERICRANIUM; TEMPORAL FASCIA.

Musculi faciei—Muscles of the face (*see note above*).

---

[1] The principal differences between the author's grouping of the facial muscles and that usual in England is shown in the following table:

ENGLISH.		TOLDT'S (*being the nomenclature of the German Anatomical Society*).	
Compressor naris muscle		= pars transversa	musculi nasalis.
Depressor alæ nasi muscle	outer part	= pars alaris	
	inner part	= musculus depressor septi.	
Levator labii superioris alæque nasi muscle		= caput angulare	musculi quadrati labii superioris.
Levator labii superioris proprius muscle		= caput infra-orbitale	
Zygomaticus minor muscle		= caput zygomaticum	

—TR.

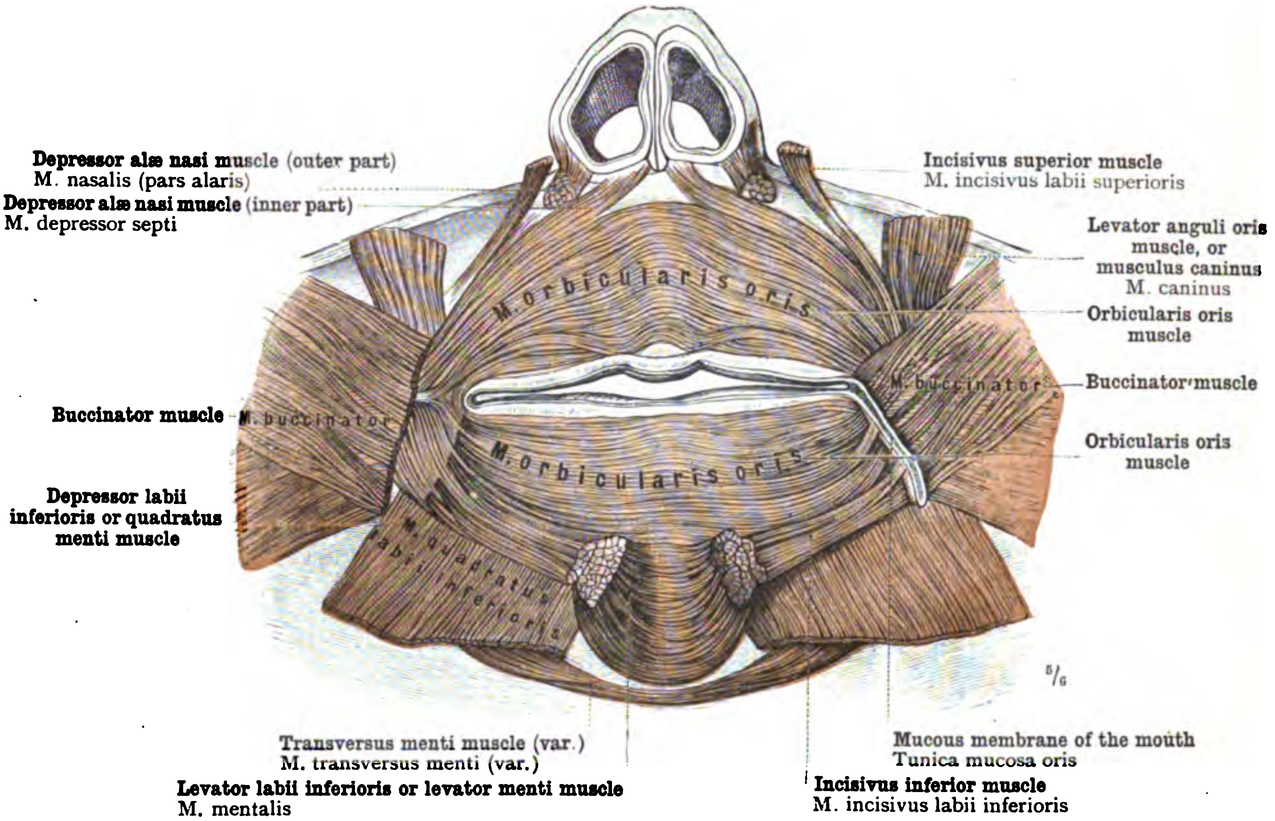

Depressor alæ nasi muscle (outer part)
M. nasalis (pars alaris)
Depressor alæ nasi muscle (inner part)
M. depressor septi
Buccinator muscle
Depressor labii inferioris or quadratus menti muscle
M. orbicularis oris
M. buccinator
M. orbicularis oris
M. quadratus labii inferioris
Incisivus superior muscle
M. incisivus labii superioris
Levator anguli oris muscle, or musculus caninus
M. caninus
Orbicularis oris muscle
Buccinator muscle
Orbicularis oris muscle
5/6
Transversus menti muscle (var.)
M. transversus menti (var.)
Levator labii inferioris or levator menti muscle
M. mentalis
Mucous membrane of the mouth
Tunica mucosa oris
Incisivus inferior muscle
M. incisivus labii inferioris

FIG. 550.—ORBICULARIS ORIS MUSCLE, AND ITS RELATION TO THE ADJOINING MUSCLES, SEEN FROM BEHIND.

The soft parts in the neighbourhood of the mouth and the cartilaginous portion of the nose were together detached from the bone, and the muscles laid bare from behind by the removal of the mucous membrane of the mouth. On the right side, a narrow strip of mucous membrane, passing outwards from the angle of the mouth, has been retained, to show the partial attachment thereto of the buccinator and orbicularis oris muscles.

M. orbicularis oris—Orbicularis oris muscle.

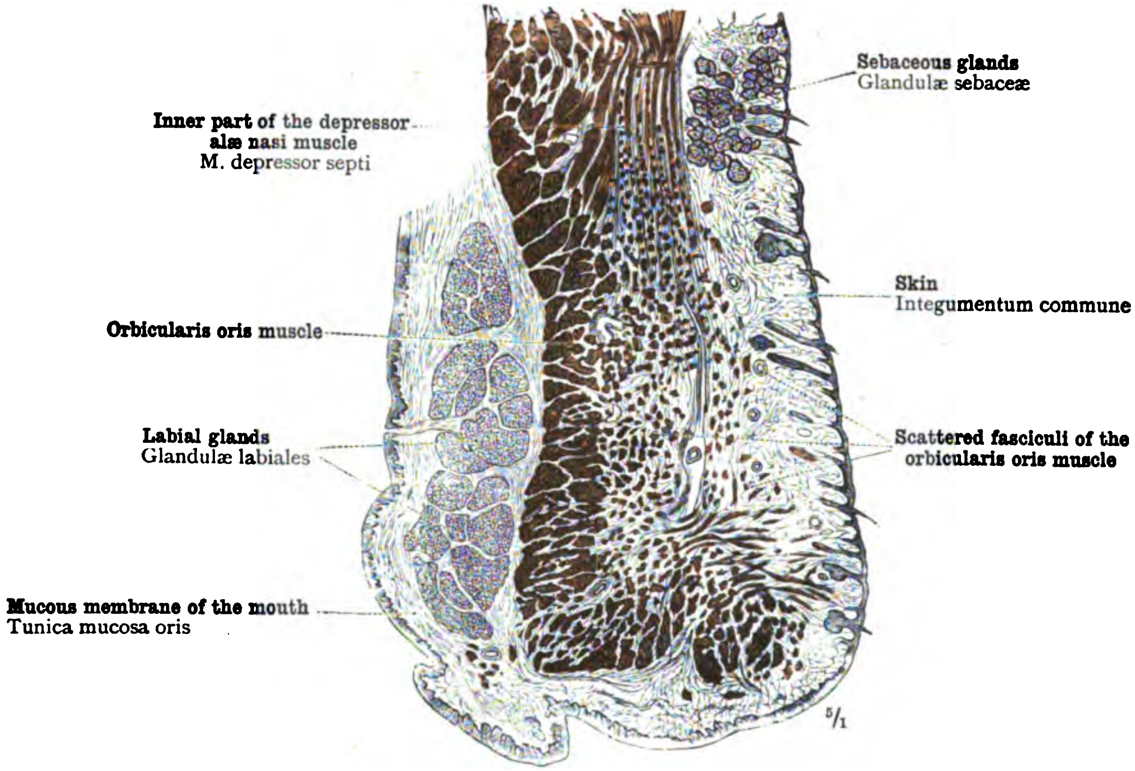


FIG. 551.—SAGITTAL SECTION THROUGH THE MIDDLE OF THE UPPER LIP, SHOWING THE SITUATION IN THE LIP OF THE ORBICULARIS ORIS, AND THE SHAPE OF THAT MUSCLE IN CROSS-SECTION.

Numerous thin fasciculi of the muscle are shown radiating to the skin.

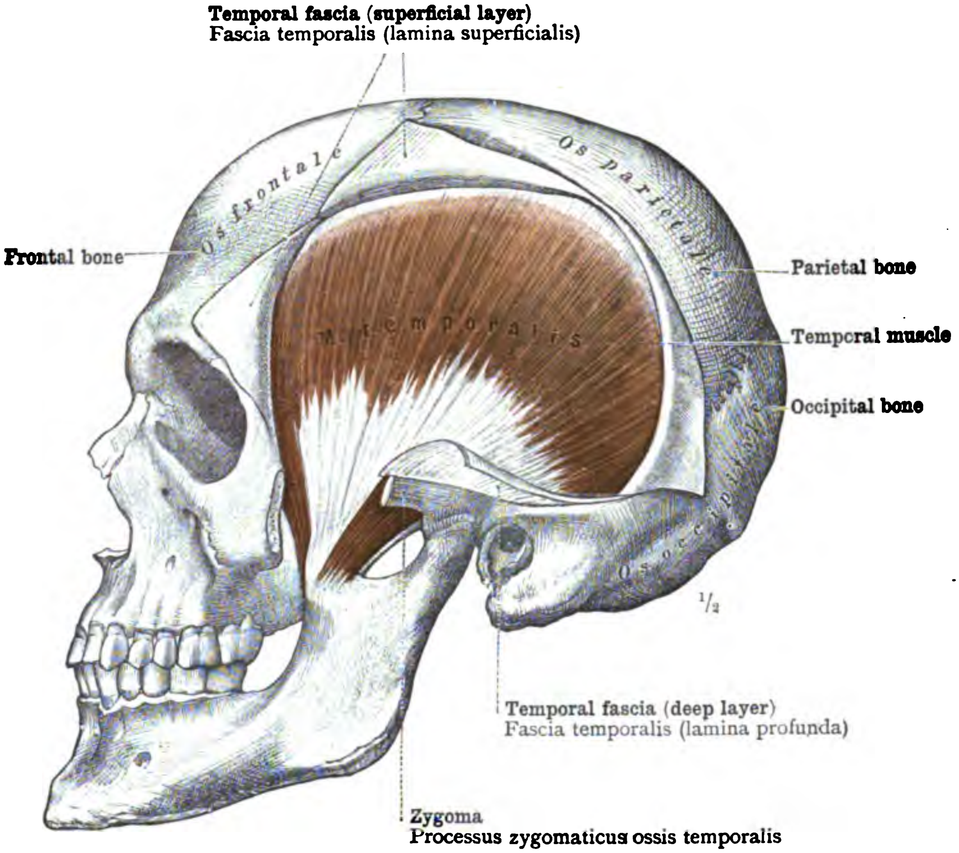

Temporal fascia (superficial layer)
Fascia temporalis (lamina superficialis)
Os frontale
Os parietale
Frontal bone
Parietal bone
M. temporalis
Temporal muscle
Occipital bone
Os occipitale
1/2
Temporal fascia (deep layer)
Fascia temporalis (lamina profunda)
Zygoma
Processus zygomaticus ossis temporalis

FIG. 552.—TEMPORAL MUSCLE, DISPLAYED ON THE LEFT SIDE OF THE HEAD, AFTER PARTIAL REMOVAL OF THE *ZYGOMATIC* ARCH, BY DISSECTING OFF THE SUPERFICIAL AND DEEP LAYERS OF THE TEMPORAL FASCIA.

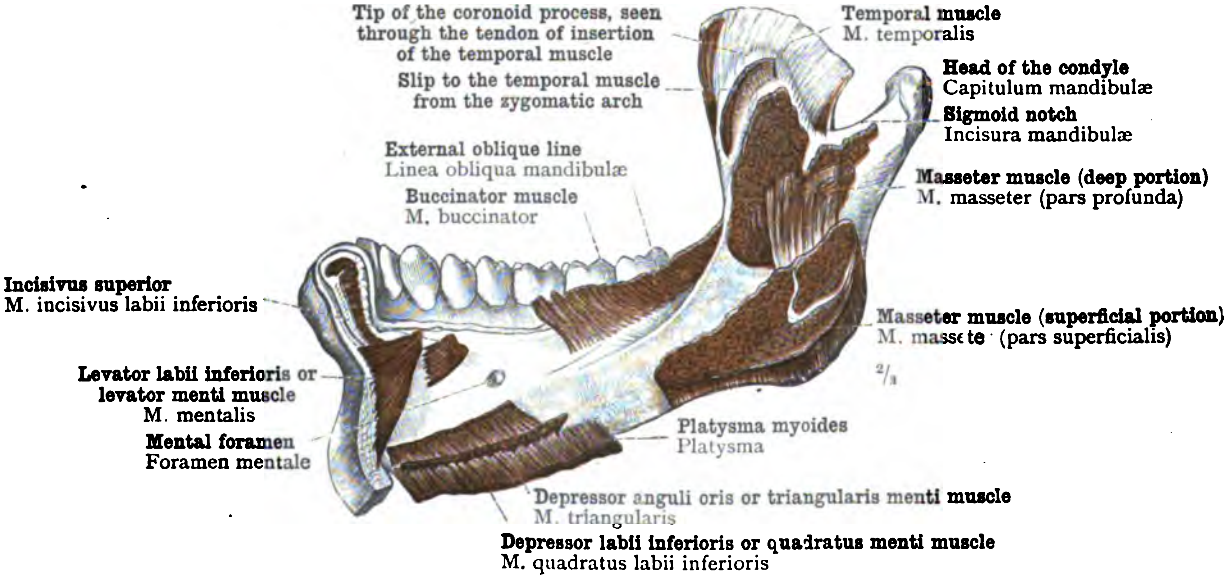

Tip of the coronoid process, seen through the tendon of insertion of the temporal muscle
Slip to the temporal muscle from the zygomatic arch
External oblique line
Linea obliqua mandibulæ
Buccinator muscle
M. buccinator
Temporal muscle
M. temporalis
Head of the condyle
Capitulum mandibulæ
Sigmoid notch
Incisura mandibulæ
Masseter muscle (deep portion)
M. masseter (pars profunda)
Incisivus superior
M. incisivus labii inferioris
Masseter muscle (superficial portion)
M. masseter (pars superficialis)
2/3
Levator labii inferioris or levator menti muscle
M. mentalis
Mental foramen
Foramen mentale
Platysma myoides
Platysma
Depressor anguli oris or triangularis menti muscle
M. triangularis
Depressor labii inferioris or quadratus menti muscle
M. quadratus labii inferioris

FIG. 553.—ATTACHMENT OF MUSCLES TO THE OUTER SURFACE OF THE INFERIOR MAXILLARY BONE. LEFT SIDE.

Musculi masticatorii—Muscles of mastication.

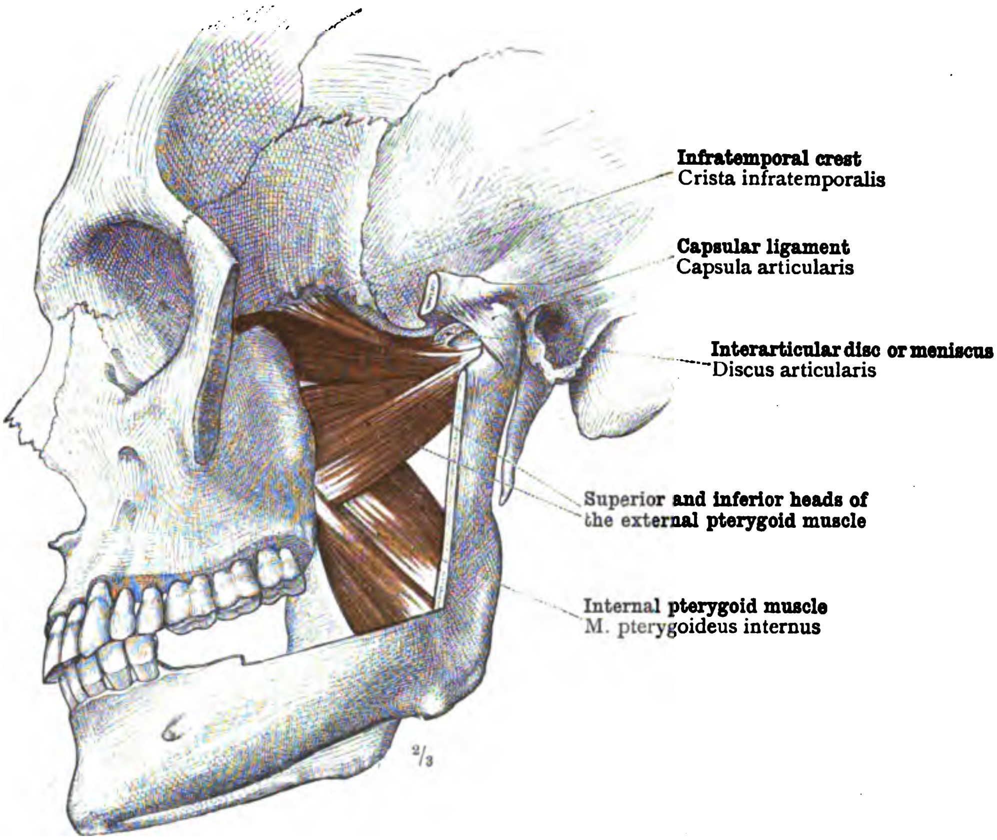


FIG. 554.—MUSCULI PTERYGOIDEI, EXTERNUS ET INTERNUS, EXTERNAL AND INTERNAL PTERYGOID MUSCLES, DISPLAYED BY THE REMOVAL OF THE ZYGOMATIC ARCH AND OF A PORTION OF THE RAMUS OF THE INFERIOR MAXILLARY BONE. SEEN FROM THE LEFT SIDE.

The temporomandibular articulation has been opened, in order to show the insertion of some of the fibres of the superior head of the external pterygoid muscle into the anterior border of the interarticular fibrocartilage and the capsular ligament of the articulation.

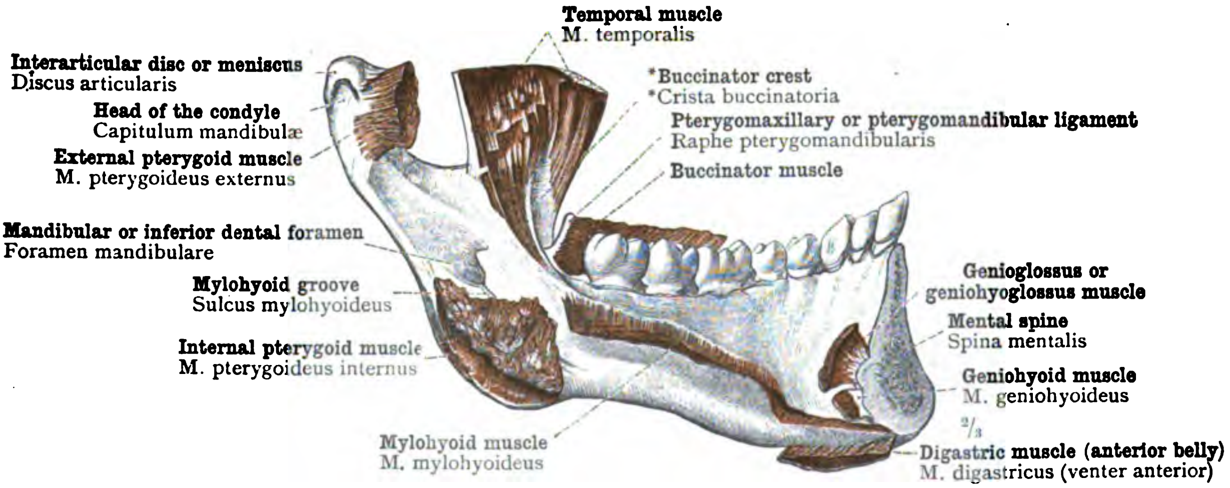


FIG. 555.—ATTACHMENT OF MUSCLES TO THE INNER SURFACE OF THE INFERIOR MAXILLARY BONE. RIGHT SIDE.

Musculi masticatorii—Muscles of mastication.

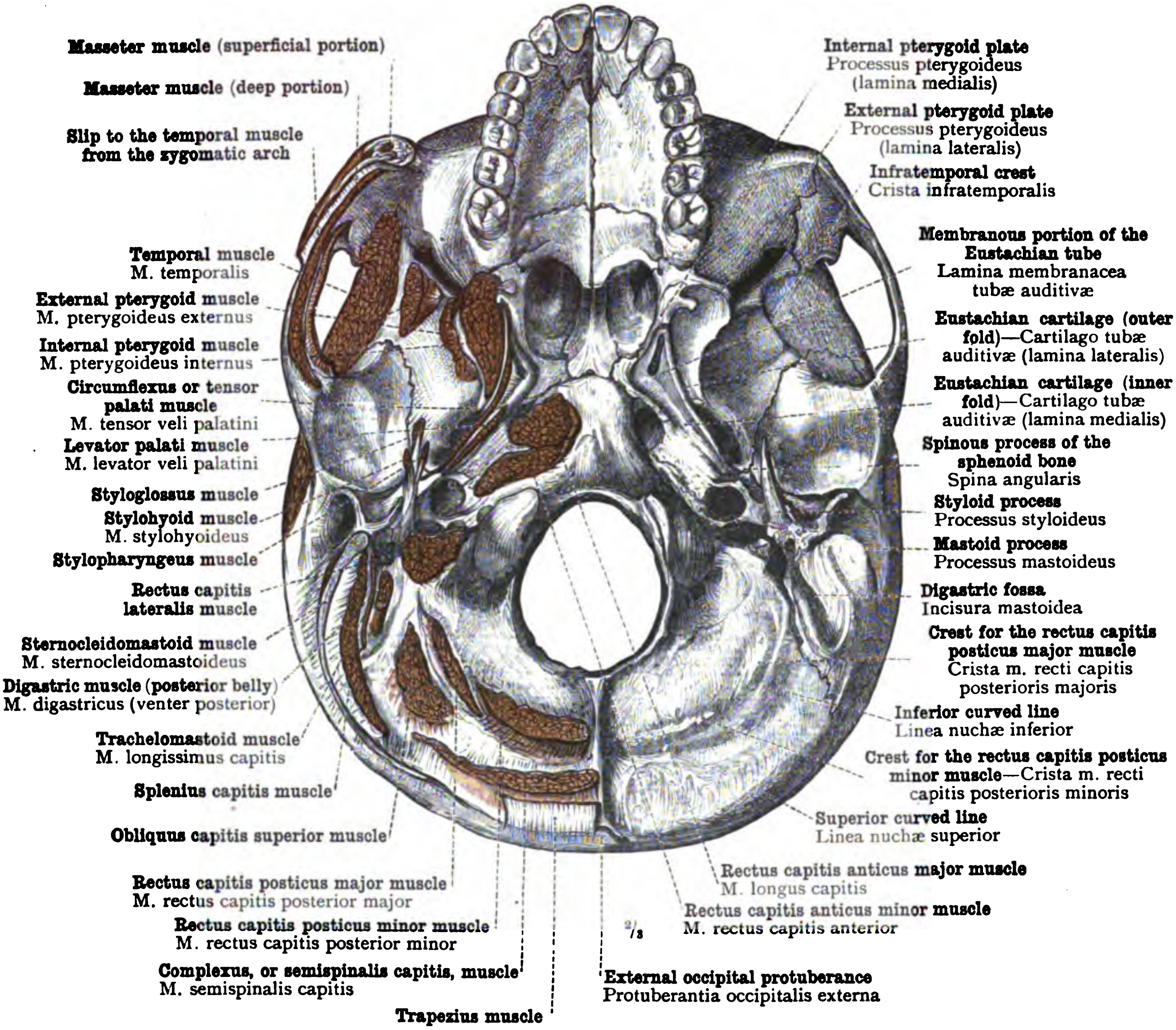

Masseter muscle (superficial portion)
Masseter muscle (deep portion)
Slip to the temporal muscle from the zygomatic arch
Temporal muscle M. temporalis
External pterygoid muscle M. pterygoideus externus
Internal pterygoid muscle M. pterygoideus internus
Circumflexus or tensor palati muscle M. tensor veli palatini
Levator palati muscle M. levator veli palatini
Styloglossus muscle
Stylohyoid muscle M. stylohyoideus
Stylopharyngeus muscle
Rectus capitis lateralis muscle
Sternocleidomastoid muscle M. sternocleidomastoideus
Digastric muscle (posterior belly) M. digastricus (venter posterior)
Trachelomastoid muscle M. longissimus capitis
Splenius capitis muscle
Obliquus capitis superior muscle
Rectus capitis posticus major muscle M. rectus capitis posterior major
Rectus capitis posticus minor muscle M. rectus capitis posterior minor
Complexus, or semispinalis capitis, muscle M. semispinalis capitis
Trapezius muscle
Internal pterygoid plate Processus pterygoideus (lamina medialis)
External pterygoid plate Processus pterygoideus (lamina lateralis)
Infratemporal crest Crista infratemporalis
Membranous portion of the Eustachian tube Lamina membranacea tubæ auditivæ
Eustachian cartilage (outer fold)—Cartilago tubæ auditivæ (lamina lateralis)
Eustachian cartilage (inner fold)—Cartilago tubæ auditivæ (lamina medialis)
Spinous process of the sphenoid bone Spina angularis
Styloid process Processus styloideus
Mastoid process Processus mastoideus
Digastric fossa Incisura mastoidea
Crest for the rectus capitis posticus major muscle Crista m. recti capitis posterioris majoris
Inferior curved line Linea nuchæ inferior
Crest for the rectus capitis posticus minor muscle—Crista m. recti capitis posterioris minoris
Superior curved line Linea nuchæ superior
Rectus capitis anticus major muscle M. longus capitis
Rectus capitis anticus minor muscle M. rectus capitis anterior
2/3
External occipital protuberance Protuberantia occipitalis externa

FIG. 556.—BASIS CRANII EXTERNA, EXTERNAL ASPECT OF THE BASE OF THE SKULL. AREAS OF ORIGIN AND INSERTION OF THE MUSCLES ATTACHED TO THE BASE OF THE SKULL.

The muscular attachments are shown on the right side only of the base of the skull; the bony prominences, etc., on the left side.

Attachment of Muscles to the External Aspect of the Base of the Skull.

MUSCULI EXTREMITATIS SUPERIORIS

THE MUSCLES OF THE UPPER EXTREMITY

BOSTON MEDICAL
OCT [illegible] 1905
LIBRARY

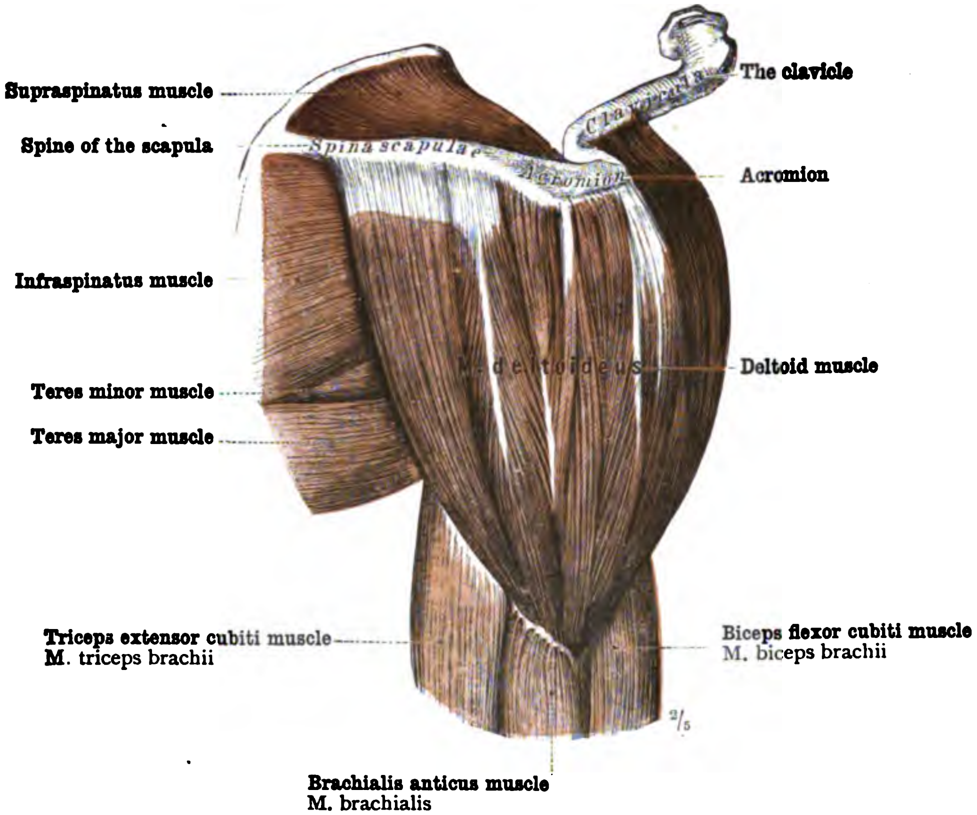


FIG. 557.—M. DELTOIDEUS, DELTOID MUSCLE, OF THE RIGHT SIDE, DORSO-EXTERNAL ASPECT, SHOWING ITS RELATIONS TO THE ADJOINING MUSCLES OF THE SHOULDER AND OF THE UPPER ARM.

Musculi articulationis humeri—Muscles of the shoulder.

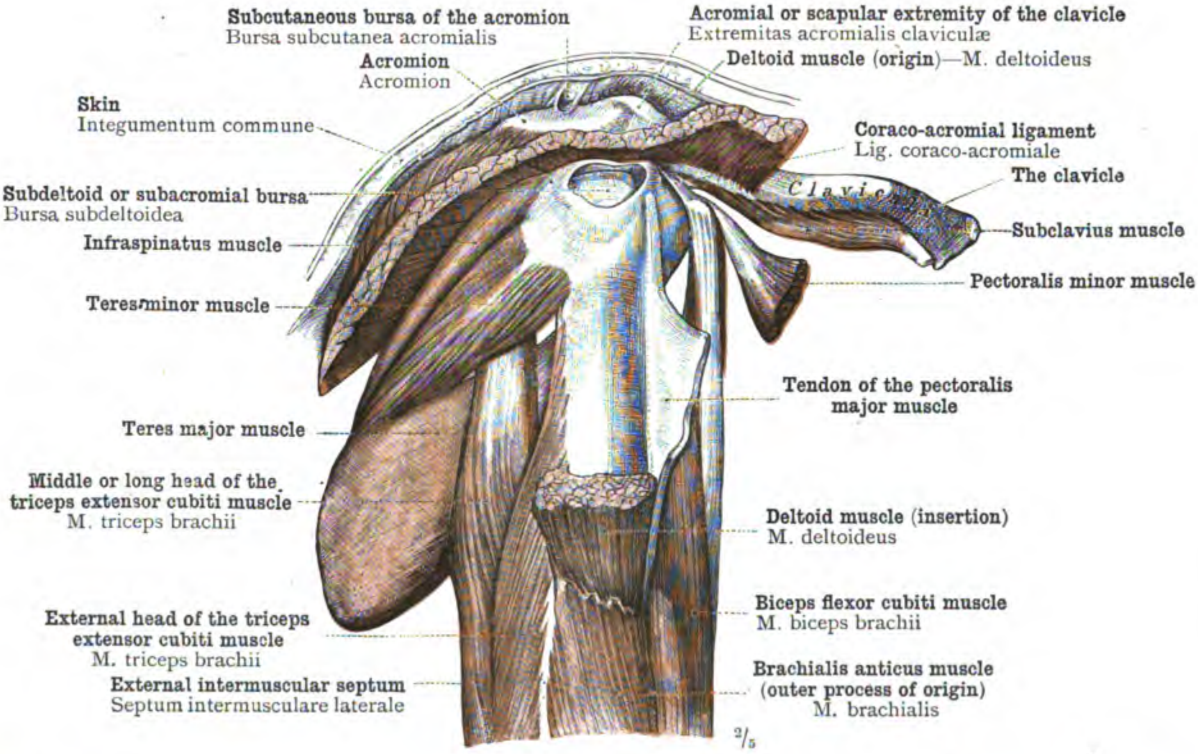
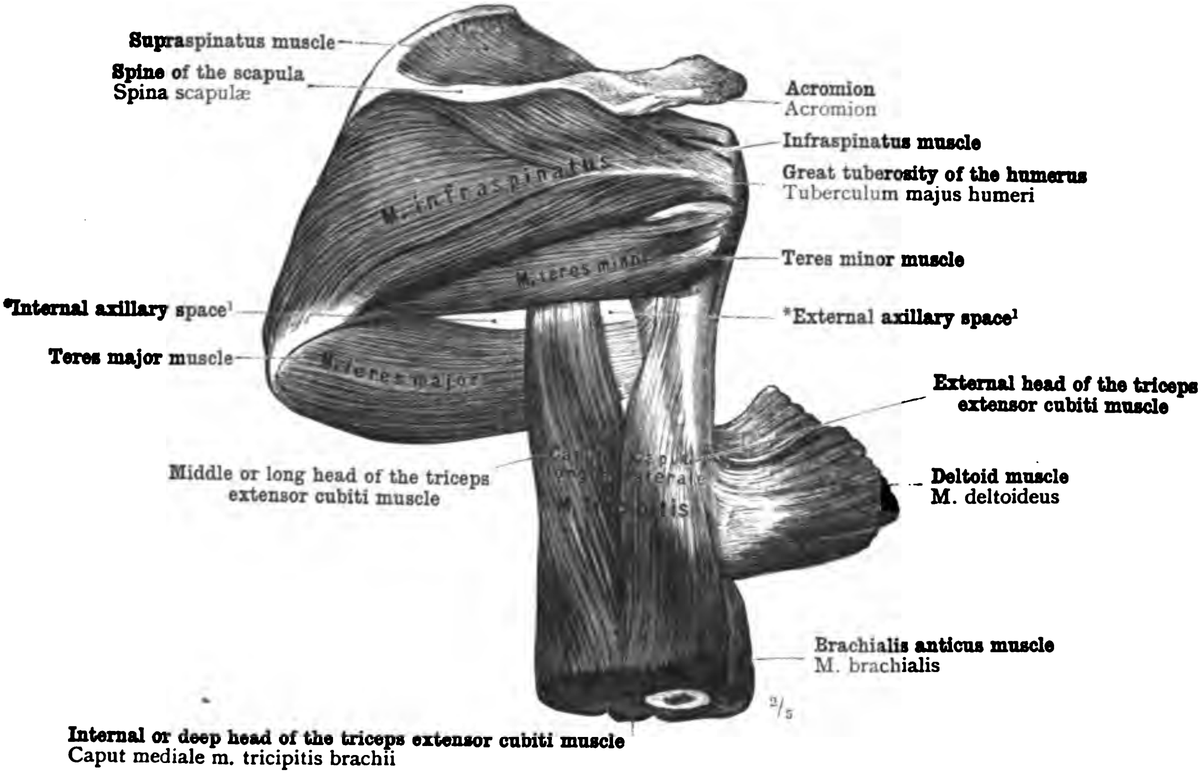

Subcutaneous bursa of the acromion
Bursa subcutanea acromialis
Acromion
Acromion
Acromial or scapular extremity of the clavicle
Extremitas acromialis claviculæ
Deltoid muscle (origin)—M. deltoideus
Skin
Integumentum commune
Coraco-acromial ligament
Lig. coraco-acromiale
The clavicle
Clavic
Subdeltoid or subacromial bursa
Bursa subdeltoidea
Infraspinatus muscle
Subclavius muscle
Pectoralis minor muscle
Teres minor muscle
Tendon of the pectoralis major muscle
Teres major muscle
Middle or long head of the triceps extensor cubiti muscle
M. triceps brachii
Deltoid muscle (insertion)
M. deltoideus
Biceps flexor cubiti muscle
M. biceps brachii
External head of the triceps extensor cubiti muscle
M. triceps brachii
External intermuscular septum
Septum intermusculare laterale
Brachialis anticus muscle (outer process of origin)
M. brachialis
2/5

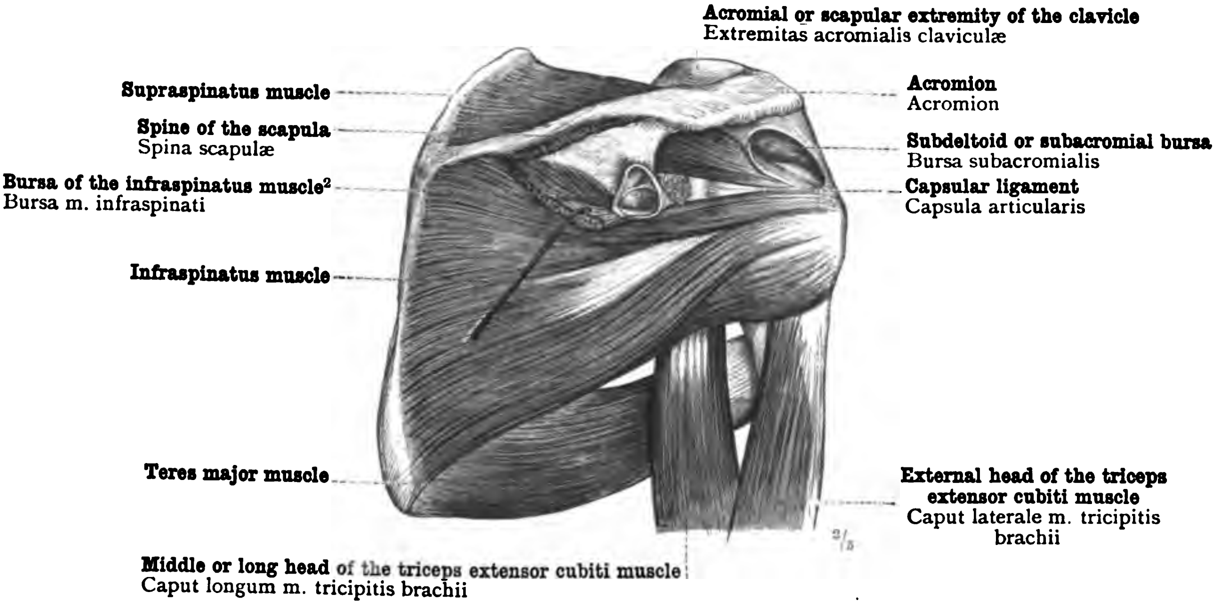
Fig. 558.—Arrangement of the Muscles adjoining the Right Shoulder-Joint and in the Proximal Portion of the Upper Arm, as seen from the Outer Side, after the Removal of the Greater Part of the Deltoid Muscle. Subdeltoid or Subacromial Bursa and Subcutaneous Bursa of the Acromion.

Musculi articulationis humeri—Muscles of the shoulder.


Supraspinatus muscle
Spine of the scapula
Spina scapulæ
Acromion
Acromion
Infraspinatus muscle
Great tuberosity of the humerus
Tuberculum majus humeri
M. infraspinatus
M. teres minor
Teres minor muscle
***Internal axillary space**[1]
***External axillary space**[1]
Teres major muscle
M. teres major
External head of the triceps extensor cubiti muscle
Middle or long head of the triceps extensor cubiti muscle
Deltoid muscle
M. deltoideus
Brachialis anticus muscle
M. brachialis
2/5
Internal or deep head of the triceps extensor cubiti muscle
Caput mediale m. tricipitis brachii

[1] *Internal and External Axillary Spaces.*—Between the lower border of the teres minor muscle, the upper part of the humerus, and the axillary border of the scapula, covered in front by the subscapularis muscle and behind by the teres minor muscle, is a triangular space, divided, as shown in the figure, by the middle or long head of the triceps into an outer, quadrilateral, and an inner, triangular, compartment, called respectively by Toldt the internal and the external axillary space. These names are not in use in England, but are suitable, and may well be adopted. Through the external axillary space the posterior circumflex nerve and vessels pass backwards; and through the internal axillary space the dorsal branch of the subscapular artery passes round the margin of the scapula into the infraspinous fossa.—Tr.

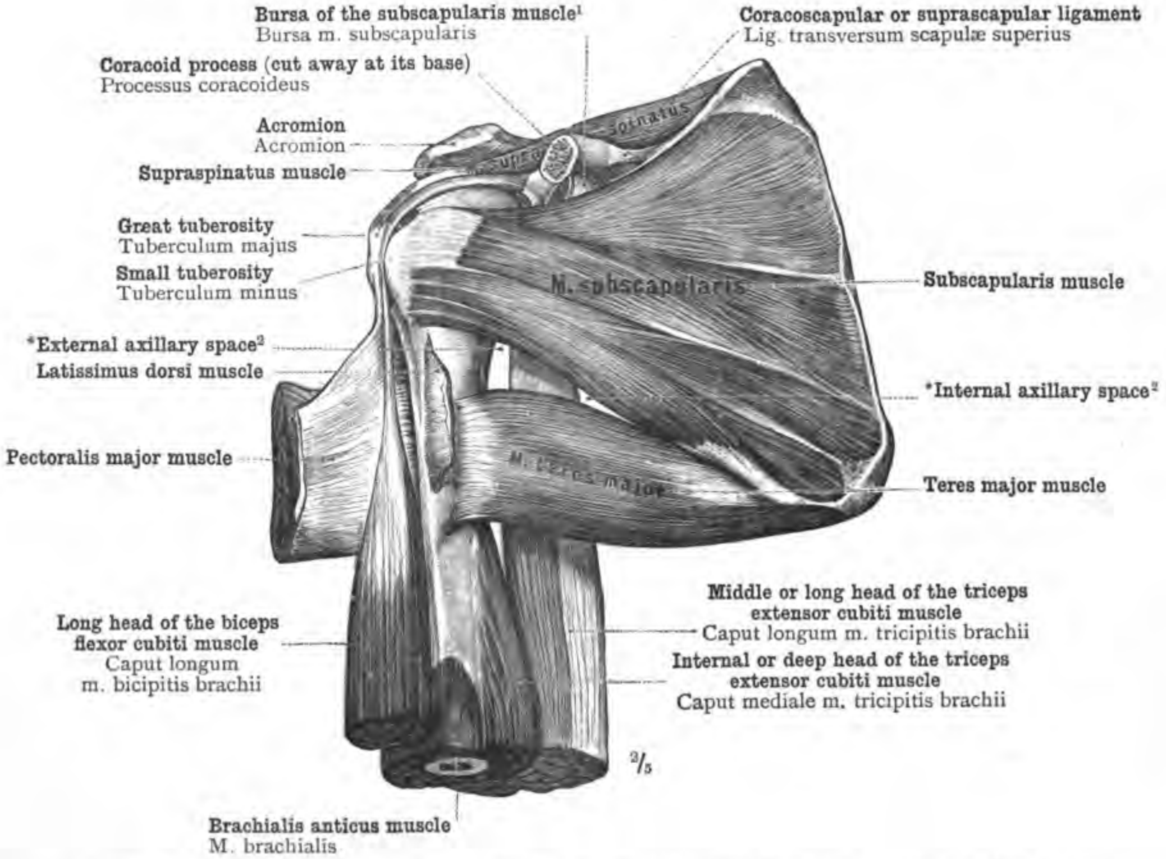
FIG. 559.—MUSCLES OF THE RIGHT SHOULDER, SEEN FROM BEHIND: SUPRASPINATUS AND INFRASPINATUS MUSCLES; TERES MAJOR AND TERES MINOR MUSCLES; THE ADJOINING PARTS OF THE TRICEPS EXTENSOR CUBITI MUSCLE. THE *INTERNAL AND THE *EXTERNAL AXILLARY SPACE (*see note above*).


Acromial or scapular extremity of the clavicle
Extremitas acromialis claviculæ
Supraspinatus muscle
Spine of the scapula
Spina scapulæ
Bursa of the infraspinatus muscle[2]
Bursa m. infraspinati
Infraspinatus muscle
Acromion
Acromion
Subdeltoid or subacromial bursa
Bursa subacromialis
Capsular ligament
Capsula articularis
Teres major muscle
External head of the triceps extensor cubiti muscle
Caput laterale m. tricipitis brachii
2/5
Middle or long head of the triceps extensor cubiti muscle
Caput longum m. tricipitis brachii

[2] The *bursa of the infraspinatus muscle* lies between the infraspinatus muscle and the capsular ligament of the shoulder-joint.—Tr.

FIG. 560.—IN A PREPARATION SIMILAR TO THAT LAST DESCRIBED, THE ORIGIN OF THE INFRASPINATUS MUSCLE WAS DETACHED FROM THE SPINE OF THE SCAPULA, TO SHOW THE BURSA BETWEEN THAT MUSCLE AND THE CAPSULE OF THE SHOULDER-JOINT. THE SUBDELTOID OR SUBACROMIAL BURSA HAS ALSO BEEN OPENED.

Musculi articulationis humeri—Muscles of the shoulder.


Bursa of the subscapularis muscle[1]
Bursa m. subscapularis
Coracoscapular or suprascapular ligament
Lig. transversum scapulæ superius
Coracoid process (cut away at its base)
Processus coracoideus
Acromion
Acromion
Supraspinatus muscle
Great tuberosity
Tuberculum majus
Small tuberosity
Tuberculum minus
M. subscapularis
Subscapularis muscle
***External axillary space**[2]
Latissimus dorsi muscle
***Internal axillary space**[2]
Pectoralis major muscle
M. teres major
Teres major muscle
Middle or long head of the triceps extensor cubiti muscle
Caput longum m. tricipitis brachii
Long head of the biceps flexor cubiti muscle
Caput longum m. bicipitis brachii
Internal or deep head of the triceps extensor cubiti muscle
Caput mediale m. tricipitis brachii
2/5
Brachialis anticus muscle
M. brachialis

[1] The *bursa of the subscapularis muscle* is situate between the upper border and posterior surface of the subscapularis muscle and the coracoid process and neck of the scapula.—Tr.

[2] See note [1] on p. 312.

FIG. 561.—MUSCLES OF THE RIGHT SHOULDER, SEEN FROM BEFORE. SUBSCAPULARIS MUSCLE, WITH ITS BURSA; SUPRASPINATUS MUSCLE; TERES MAJOR MUSCLE. ADJOINING PORTIONS OF THE MUSCLES OF THE UPPER ARM AND OF THE MUSCLES PASSING FROM THE TRUNK TO THE UPPER LIMB. THE *INTERNAL AND THE *EXTERNAL AXILLARY SPACE (*see note* [1] *on p.* 312).

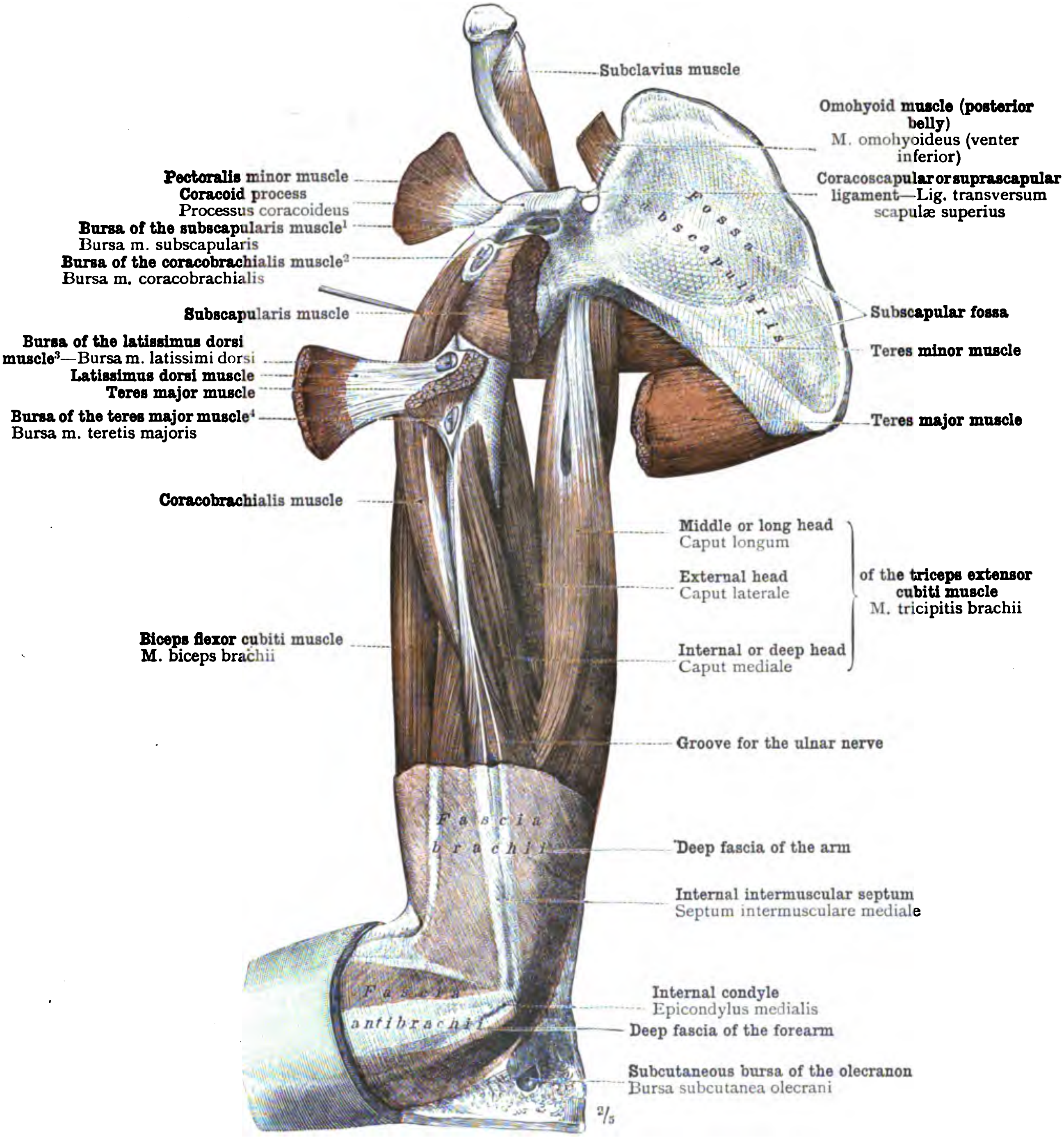

Subclavius muscle
Omohyoid muscle (posterior belly)
M. omohyoideus (venter inferior)
Coracoscapular or suprascapular ligament—Lig. transversum scapulæ superius
Pectoralis minor muscle
Coracoid process
Processus coracoideus
Bursa of the subscapularis muscle[1]
Bursa m. subscapularis
Bursa of the coracobrachialis muscle[2]
Bursa m. coracobrachialis
Fossa subscapularis
Subscapularis muscle
Subscapular fossa
Bursa of the latissimus dorsi muscle[3]—Bursa m. latissimi dorsi
Latissimus dorsi muscle
Teres major muscle
Teres minor muscle
Bursa of the teres major muscle[4]
Bursa m. teretis majoris
Teres major muscle
Coracobrachialis muscle
Middle or long head
Caput longum
External head
Caput laterale
of the triceps extensor cubiti muscle
M. tricipitis brachii
Internal or deep head
Caput mediale
Biceps flexor cubiti muscle
M. biceps brachii
Groove for the ulnar nerve
Fascia brachii
Deep fascia of the arm
Internal intermuscular septum
Septum intermusculare mediale
Fascia antibrachii
Internal condyle
Epicondylus medialis
Deep fascia of the forearm
Subcutaneous bursa of the olecranon
Bursa subcutanea olecrani
2/5

FIG. 562.—ARRANGEMENT OF THE MUSCLES IN THE PROXIMAL PORTION OF THE RIGHT UPPER ARM, AND THE RELATION OF THESE MUSCLES TO THE INSERTIONS OF THE MUSCLES OF THE SHOULDER AND OF THE MUSCLES PASSING FROM THE TRUNK TO THE UPPER LIMB. SEEN FROM THE INNER SIDE. BURSÆ OF THIS REGION. DISTAL PORTION OF THE DEEP FASCIA OF THE UPPER ARM AND PROXIMAL PORTION OF THE DEEP FASCIA OF THE FOREARM. SUBCUTANEOUS BURSA OF THE OLECRANON.

Musculi brachii—Muscles of the upper arm.

---

[1] See note [1], p. 313.

[2] The *bursa of the coracobrachialis muscle* is situate between the anterior surface of the subscapularis muscle and the upper ends of the biceps and the coracobrachialis muscles.—TR.

[3] The *bursa of the latissimus dorsi muscle* is situate between the tendon of the latissimus dorsi muscle and that of the teres major muscle.—TR.

[4] The *bursa of the teres major muscle* is situate between the tendon of the teres major muscle and the humerus.—TR.

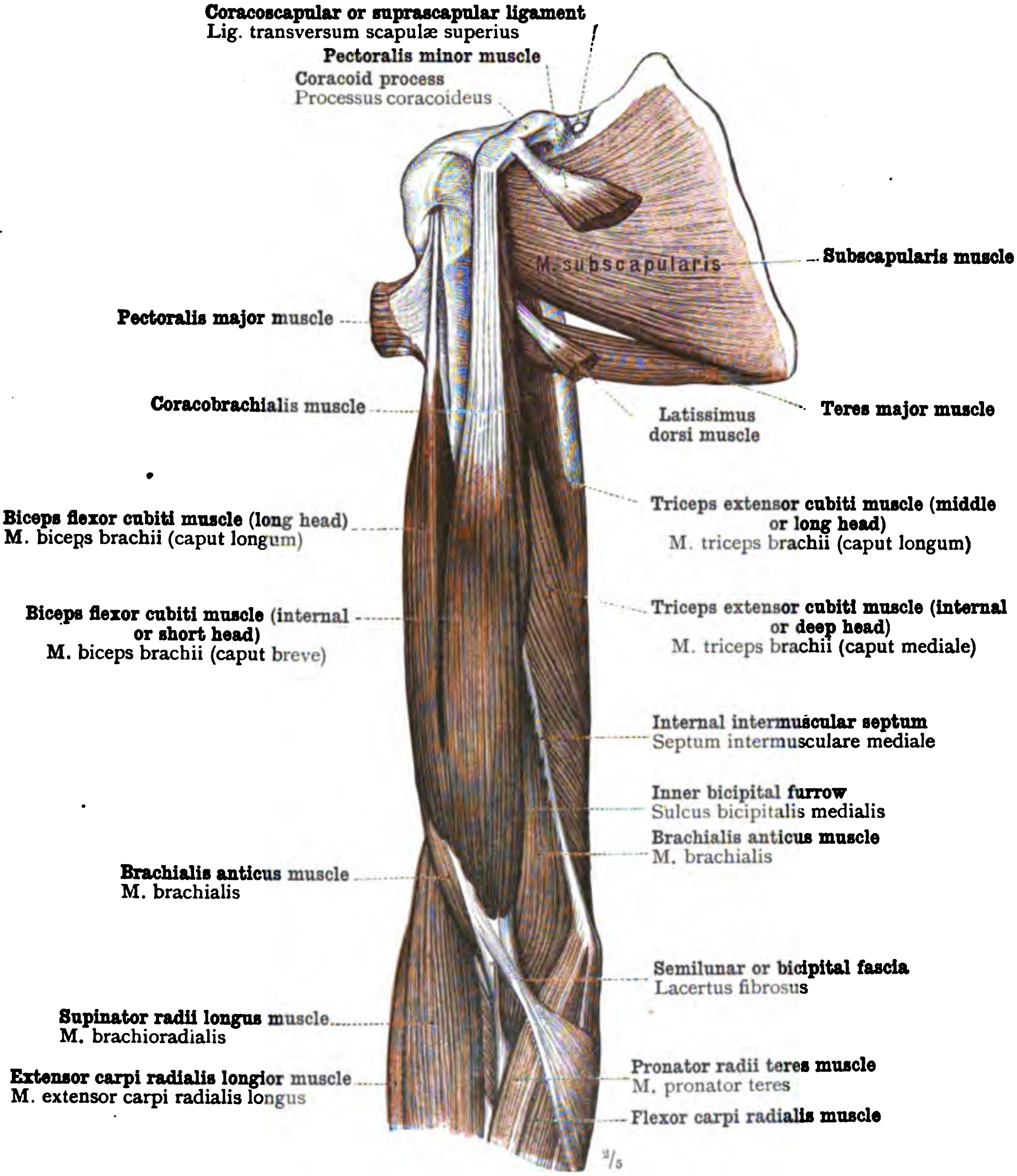
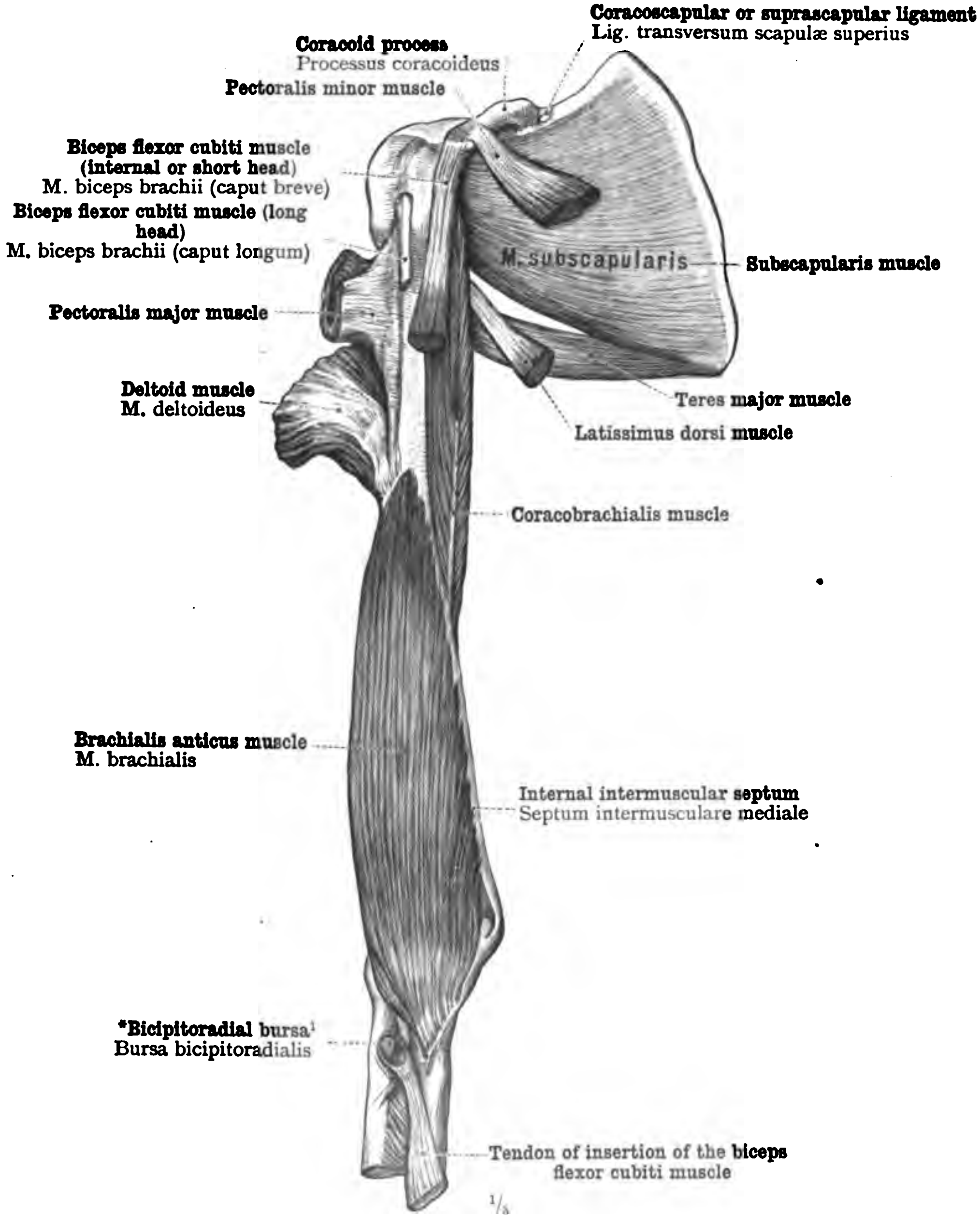

Coracoscapular or suprascapular ligament
Lig. transversum scapulæ superius
Pectoralis minor muscle
Coracoid process
Processus coracoideus
M. subscapularis
Subscapularis muscle
Pectoralis major muscle
Coracobrachialis muscle
Latissimus dorsi muscle
Teres major muscle
Biceps flexor cubiti muscle (long head)
M. biceps brachii (caput longum)
Triceps extensor cubiti muscle (middle or long head)
M. triceps brachii (caput longum)
Biceps flexor cubiti muscle (internal or short head)
M. biceps brachii (caput breve)
Triceps extensor cubiti muscle (internal or deep head)
M. triceps brachii (caput mediale)
Internal intermuscular septum
Septum intermusculare mediale
Inner bicipital furrow
Sulcus bicipitalis medialis
Brachialis anticus muscle
M. brachialis
Brachialis anticus muscle
M. brachialis
Semilunar or bicipital fascia
Lacertus fibrosus
Supinator radii longus muscle
M. brachioradialis
Pronator radii teres muscle
M. pronator teres
Extensor carpi radialis longior muscle
M. extensor carpi radialis longus
Flexor carpi radialis muscle
2/5

FIG. 563.—BICEPS FLEXOR CUBITI MUSCLE, OF THE RIGHT SIDE, AND ITS RELATIONS TO THE OTHER MUSCLES ON THE FLEXOR SIDE OF THE UPPER ARM, TO THE MUSCLES OF THE SHOULDER, TO THE MUSCLES PASSING FROM THE TRUNK TO THE UPPER LIMB, AND TO THE MUSCLES OF THE FOREARM.

Musculi brachii—Muscles of the upper arm.


Coracoscapular or suprascapular ligament
Lig. transversum scapulæ superius
Coracoid process
Processus coracoideus
Pectoralis minor muscle
Biceps flexor cubiti muscle (internal or short head)
M. biceps brachii (caput breve)
Biceps flexor cubiti muscle (long head)
M. biceps brachii (caput longum)
M. subscapularis
Subscapularis muscle
Pectoralis major muscle
Deltoid muscle
M. deltoideus
Teres major muscle
Latissimus dorsi muscle
Coracobrachialis muscle
Brachialis anticus muscle
M. brachialis
Internal intermuscular septum
Septum intermusculare mediale
***Bicipitoradial bursa**[1]
Bursa bicipitoradialis
Tendon of insertion of the biceps flexor cubiti muscle
1/3

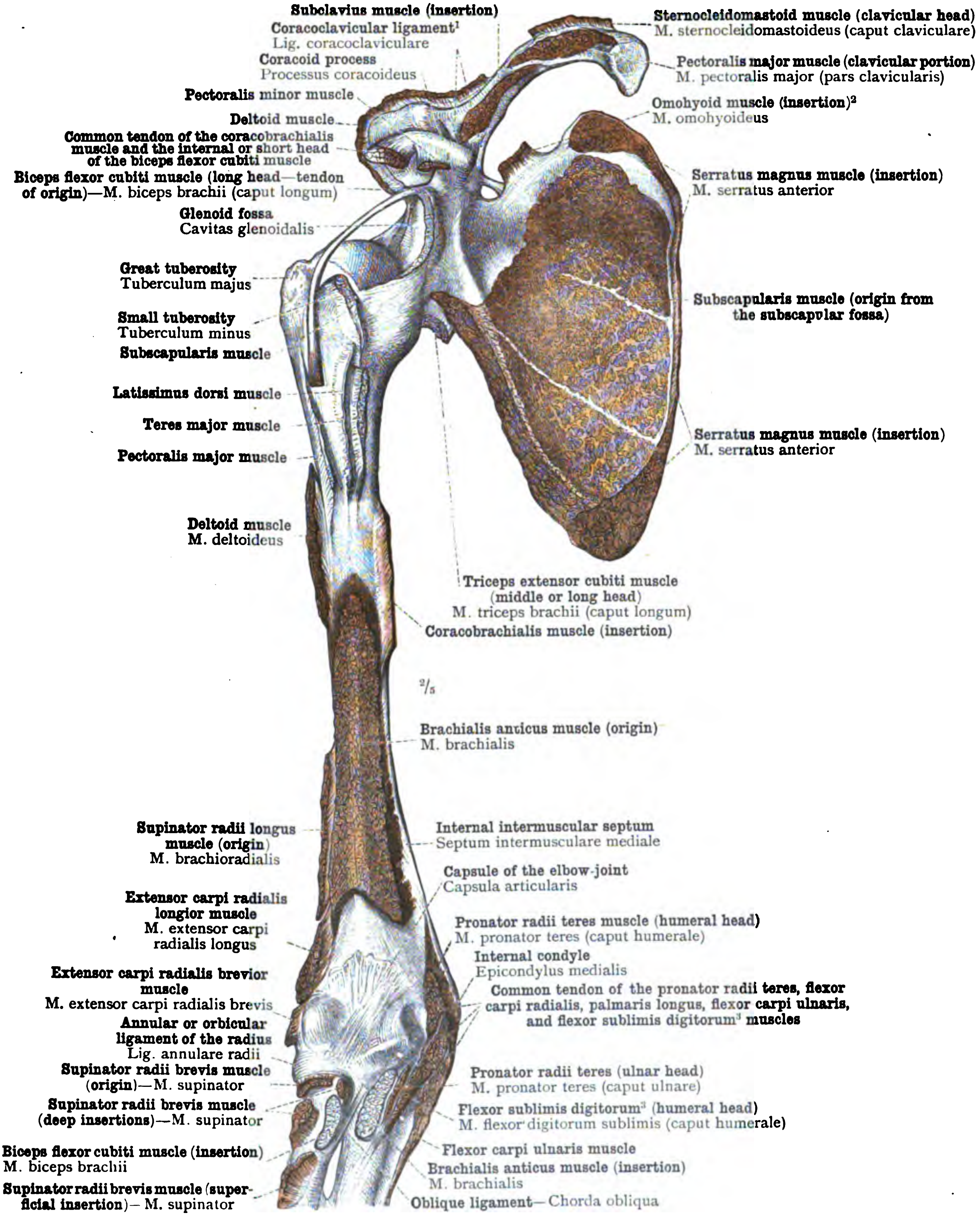
---

[1] This bursa is situate between the tendon of insertion of the biceps muscle and the anterior smooth portion of the tuberosity of the radius.—Tr.

Fig. 564.—The Muscles of the Anterior (Flexor) Side of the Right Upper Arm, after Removal of the Biceps Flexor Cubiti Muscle. Coracobrachialis Muscle; Brachialis Anticus Muscle.

The tendon of insertion of the biceps flexor cubiti muscle has been turned downwards, in order to display the *bicipitoradial bursa (*see note above*).

Musculi brachii—Muscles of the upper arm.


Subclavius muscle (insertion)
Coracoclavicular ligament[1]
Lig. coracoclaviculare
Coracoid process
Processus coracoideus
Pectoralis minor muscle
Deltoid muscle
Common tendon of the coracobrachialis muscle and the internal or short head of the biceps flexor cubiti muscle
Biceps flexor cubiti muscle (long head—tendon of origin)—M. biceps brachii (caput longum)
Glenoid fossa
Cavitas glenoidalis
Great tuberosity
Tuberculum majus
Small tuberosity
Tuberculum minus
Subscapularis muscle
Latissimus dorsi muscle
Teres major muscle
Pectoralis major muscle
Deltoid muscle
M. deltoideus
Sternocleidomastoid muscle (clavicular head)
M. sternocleidomastoideus (caput claviculare)
Pectoralis major muscle (clavicular portion)
M. pectoralis major (pars clavicularis)
Omohyoid muscle (insertion)[2]
M. omohyoideus
Serratus magnus muscle (insertion)
M. serratus anterior
Subscapularis muscle (origin from the subscapular fossa)
Serratus magnus muscle (insertion)
M. serratus anterior
Triceps extensor cubiti muscle (middle or long head)
M. triceps brachii (caput longum)
Coracobrachialis muscle (insertion)
2/5
Brachialis anticus muscle (origin)
M. brachialis
Supinator radii longus muscle (origin)
M. brachioradialis
Extensor carpi radialis longior muscle
M. extensor carpi radialis longus
Extensor carpi radialis brevior muscle
M. extensor carpi radialis brevis
Annular or orbicular ligament of the radius
Lig. annulare radii
Supinator radii brevis muscle (origin)—M. supinator
Supinator radii brevis muscle (deep insertions)—M. supinator
Biceps flexor cubiti muscle (insertion)
M. biceps brachii
Supinator radii brevis muscle (superficial insertion)—M. supinator
Internal intermuscular septum
Septum intermusculare mediale
Capsule of the elbow-joint
Capsula articularis
Pronator radii teres muscle (humeral head)
M. pronator teres (caput humerale)
Internal condyle
Epicondylus medialis
Common tendon of the pronator radii teres, flexor carpi radialis, palmaris longus, flexor carpi ulnaris, and flexor sublimis digitorum[3] muscles
Pronator radii teres (ulnar head)
M. pronator teres (caput ulnare)
Flexor sublimis digitorum[3] (humeral head)
M. flexor digitorum sublimis (caput humerale)
Flexor carpi ulnaris muscle
Brachialis anticus muscle (insertion)
M. brachialis
Oblique ligament—Chorda obliqua

---

[1] This term, *coracoclavicular ligament*, is seldom used in England, where the two parts of which the ligament consists are more often separately described, as the *conoid ligament* and the *trapezoid ligament*, respectively. See Section II. of this work, p. 202, Fig. 435.—Tr.

[2] The scapular attachment of the omohyoid is by English anatomists regarded as the *origin* of that muscle.—Tr.

[3] Or *flexor perforatus* muscle.

Fig. 565.—Attachment of Muscles to the Anterior Surfaces of the Scapula, the Humerus, and the Elbow.

Musculi brachii—Muscles of the upper arm.

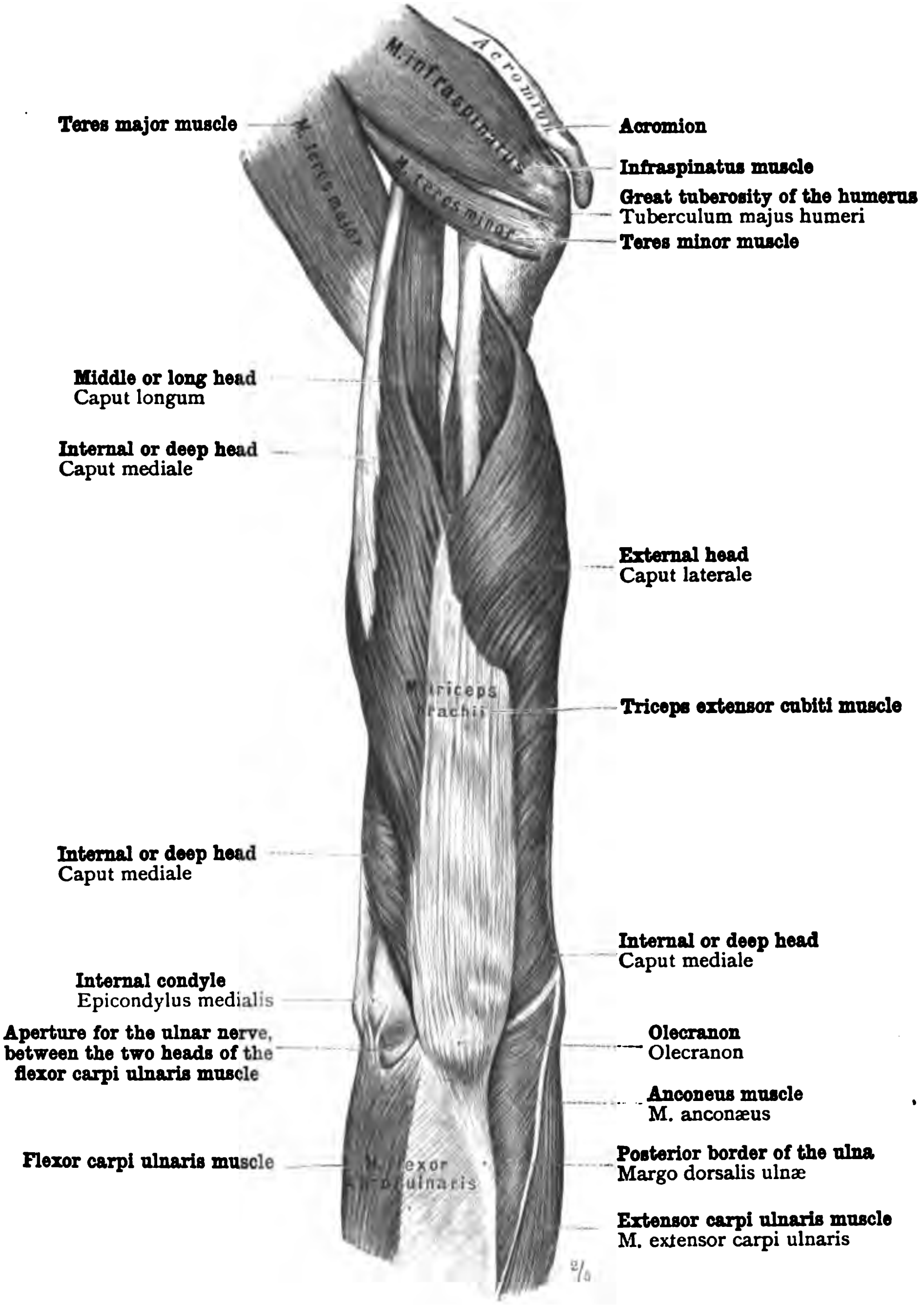
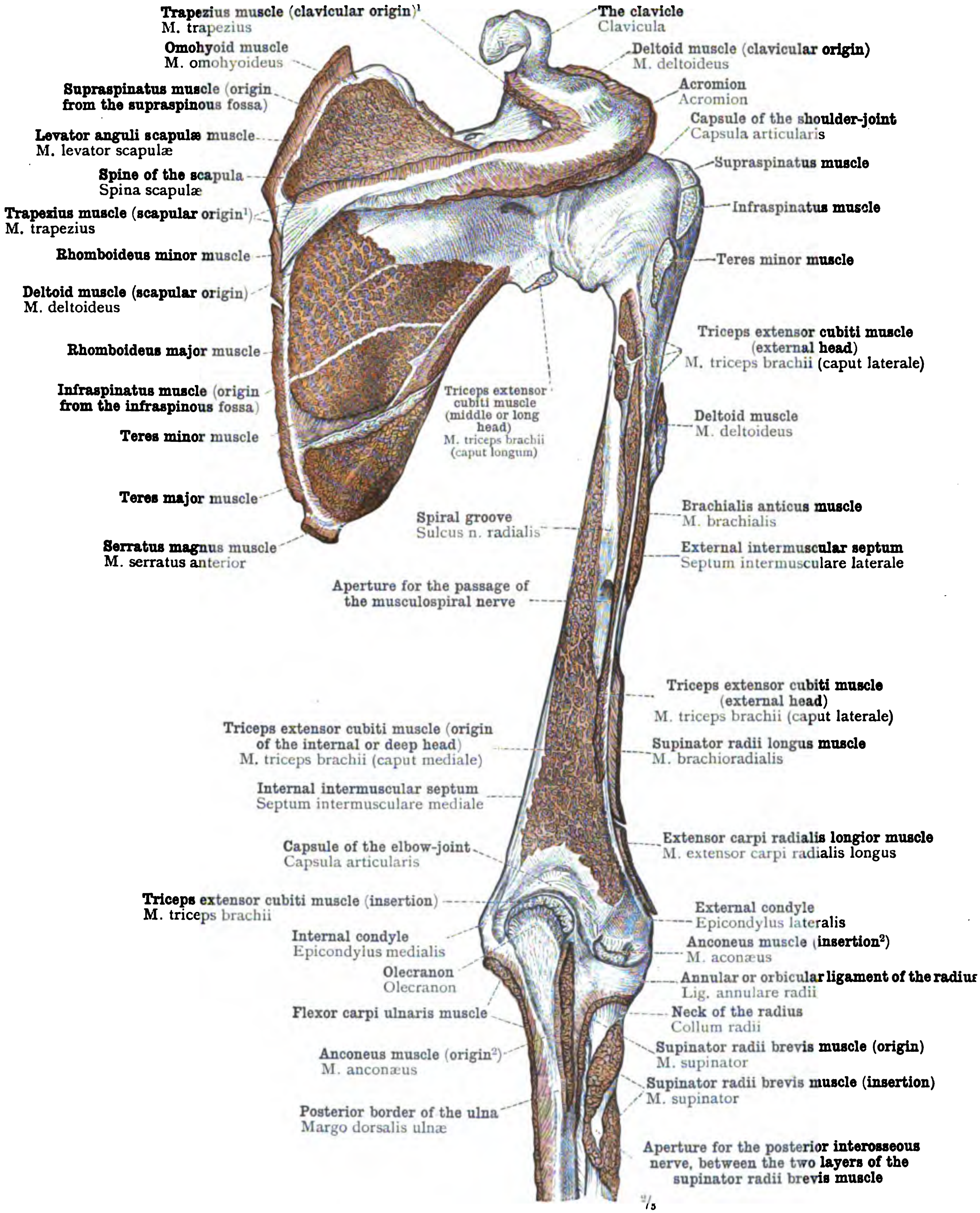


FIG. 566.—TRICEPS EXTENSOR CUBITI MUSCLE, OF THE RIGHT SIDE, SEEN FROM BEHIND; THE RELATIONS OF ITS PROXIMAL EXTREMITY TO THE MUSCLES OF THE SHOULDER, AND OF ITS DISTAL EXTREMITY TO THE MUSCLES OF THE FOREARM. ANCONEUS MUSCLE.

Musculi brachii—Muscles of the upper arm.


Trapezius muscle (clavicular origin)[1]
M. trapezius
Omohyoid muscle
M. omohyoideus
Supraspinatus muscle (origin from the supraspinous fossa)
Levator anguli scapulæ muscle
M. levator scapulæ
Spine of the scapula
Spina scapulæ
Trapezius muscle (scapular origin[1])
M. trapezius
Rhomboideus minor muscle
Deltoid muscle (scapular origin)
M. deltoideus
Rhomboideus major muscle
Infraspinatus muscle (origin from the infraspinous fossa)
Teres minor muscle
Teres major muscle
Serratus magnus muscle
M. serratus anterior
The clavicle
Clavicula
Deltoid muscle (clavicular origin)
M. deltoideus
Acromion
Acromion
Capsule of the shoulder-joint
Capsula articularis
Supraspinatus muscle
Infraspinatus muscle
Teres minor muscle
Triceps extensor cubiti muscle (external head)
M. triceps brachii (caput laterale)
Triceps extensor cubiti muscle (middle or long head)
M. triceps brachii (caput longum)
Deltoid muscle
M. deltoideus
Brachialis anticus muscle
M. brachialis
Spiral groove
Sulcus n. radialis
External intermuscular septum
Septum intermusculare laterale
Aperture for the passage of the musculospiral nerve
Triceps extensor cubiti muscle (external head)
M. triceps brachii (caput laterale)
Triceps extensor cubiti muscle (origin of the internal or deep head)
M. triceps brachii (caput mediale)
Supinator radii longus muscle
M. brachioradialis
Internal intermuscular septum
Septum intermusculare mediale
Extensor carpi radialis longior muscle
M. extensor carpi radialis longus
Capsule of the elbow-joint
Capsula articularis
Triceps extensor cubiti muscle (insertion)
M. triceps brachii
External condyle
Epicondylus lateralis
Internal condyle
Epicondylus medialis
Anconeus muscle (insertion[2])
M. aconæus
Olecranon
Olecranon
Annular or orbicular ligament of the radius
Lig. annulare radii
Flexor carpi ulnaris muscle
Neck of the radius
Collum radii
Supinator radii brevis muscle (origin)
M. supinator
Anconeus muscle (origin[2])
M. anconæus
Supinator radii brevis muscle (insertion)
M. supinator
Posterior border of the ulna
Margo dorsalis ulnæ
Aperture for the posterior interosseous nerve, between the two layers of the supinator radii brevis muscle
2/5

[1] *Insertion* of the trapezius muscle, according to English anatomists.

[2] English anatomists regard the humeral attachment of the anconeus muscle as the *origin*, and the ulnar attachment as the *insertion*, of that muscle.—Tr.

FIG. 567.—ATTACHMENT OF MUSCLES TO THE POSTERIOR SURFACES OF THE SCAPULA, THE HUMERUS, AND THE ELBOW.

Musculi brachii—Muscles of the upper arm.

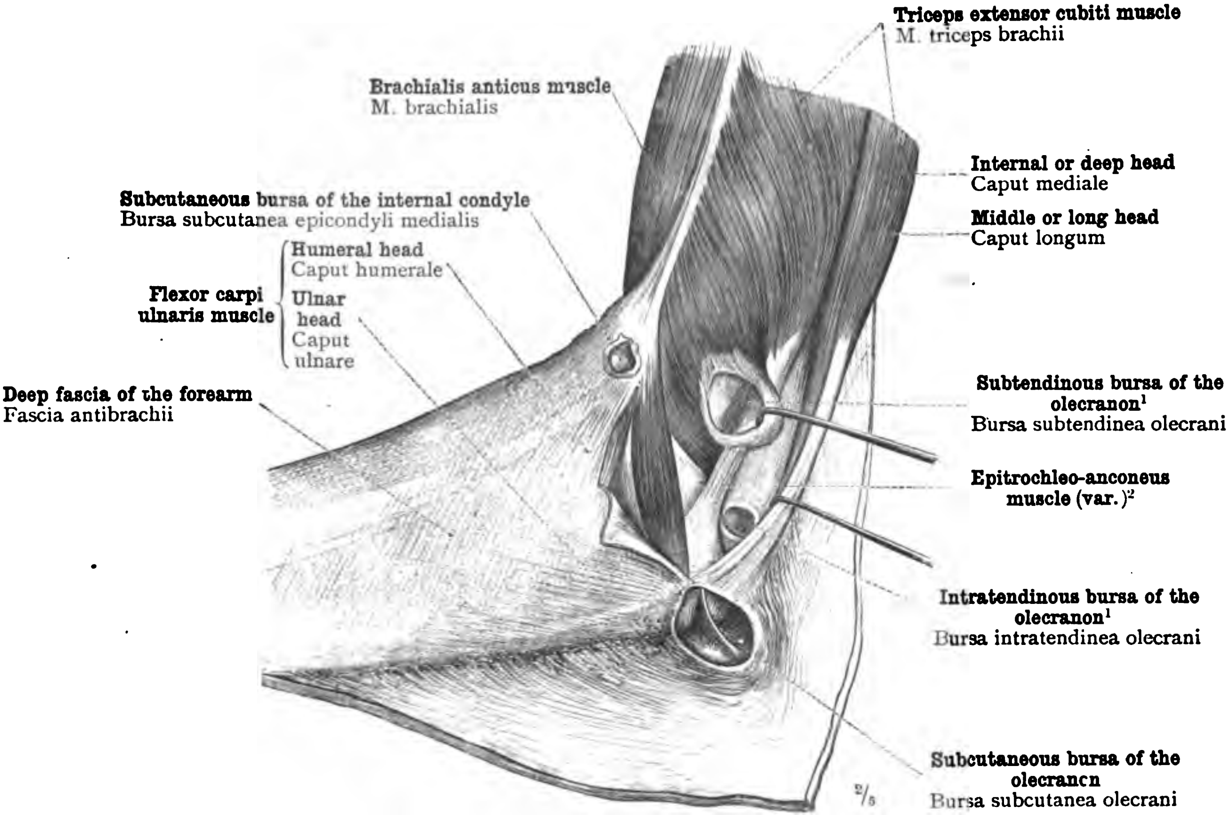

Triceps extensor cubiti muscle
M. triceps brachii
Brachialis anticus muscle
M. brachialis
Internal or deep head
Caput mediale
Middle or long head
Caput longum
Subcutaneous bursa of the internal condyle
Bursa subcutanea epicondyli medialis
Humeral head
Caput humerale
Flexor carpi ulnaris muscle
Ulnar head
Caput ulnare
Deep fascia of the forearm
Fascia antibrachii
Subtendinous bursa of the olecranon[1]
Bursa subtendinea olecrani
Epitrochleo-anconeus muscle (var.)[2]
Intratendinous bursa of the olecranon[1]
Bursa intratendinea olecrani
Subcutaneous bursa of the olecranon
Bursa subcutanea olecrani
2/5

FIG. 568.—THE INNER SIDE OF THE RIGHT ELBOW WITH THE DISTAL EXTREMITY OF THE TRICEPS EXTENSOR CUBITI MUSCLE, THE ANOMALOUS EPITROCHLEO-ANCONEUS MUSCLE, AND THE BURSÆ OF THIS REGION.

In order to display the intratendinous and the subtendinous bursæ of the olecranon, two longitudinal incisions have been made in the distal extremity of the triceps extensor cubiti muscle, and the posterior margins of the incisions have been retracted with hooks. In the region of the forearm the deep fascia has been left intact.

Musculi brachii—Muscles of the upper arm.

---

[1] Concerning these bursæ Quain writes ("Elements of Anatomy," 10th ed., vol. ii., Part II., p. 221): "In many cases there is a small bursa above the olecranon, either between the tendon of the triceps and the posterior ligament, or more frequently in the deep part of the tendon itself. A bursa behind the internal condyle, beneath the inner edge of the triceps and the ulnar nerve, is of rare occurrence."—TR.

[2] The *epitrochleo-anconeus* is a small muscle often found, which arises from the posterior surface of the internal condyle of the humerus, and is inserted into the olecranon. It is superficial to the ulnar nerve. When absent, it is represented by a band of transverse fibres in the deep fascia of the arm.—TR.

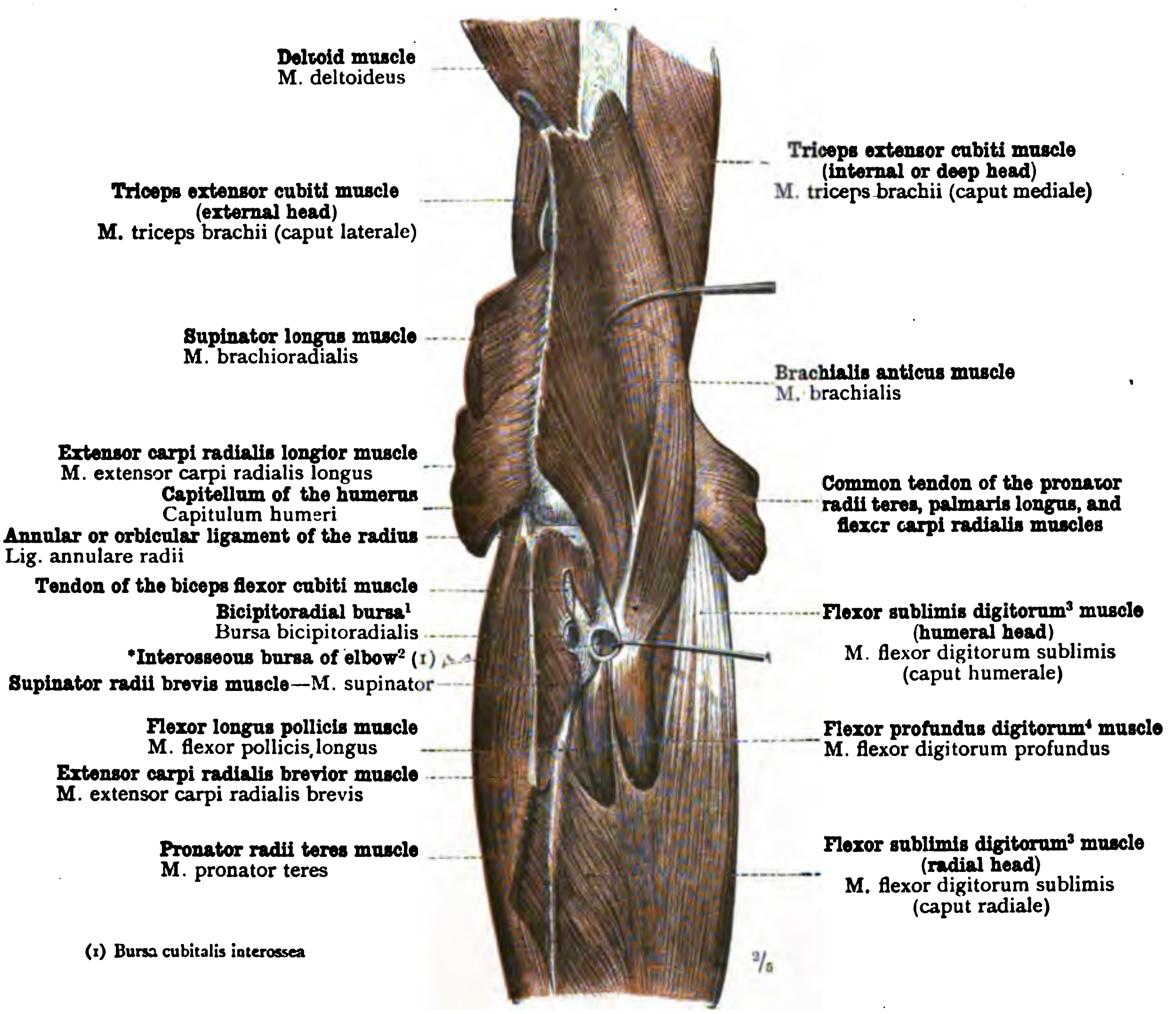

Deltoid muscle
M. deltoideus
Triceps extensor cubiti muscle (external head)
M. triceps brachii (caput laterale)
Supinator longus muscle
M. brachioradialis
Extensor carpi radialis longior muscle
M. extensor carpi radialis longus
Capitellum of the humerus
Capitulum humeri
Annular or orbicular ligament of the radius
Lig. annulare radii
Tendon of the biceps flexor cubiti muscle
Bicipitoradial bursa[1]
Bursa bicipitoradialis
*Interosseous bursa of elbow[2] (1)
Supinator radii brevis muscle—M. supinator
Flexor longus pollicis muscle
M. flexor pollicis longus
Extensor carpi radialis brevior muscle
M. extensor carpi radialis brevis
Pronator radii teres muscle
M. pronator teres
(1) Bursa cubitalis interossea
Triceps extensor cubiti muscle (internal or deep head)
M. triceps brachii (caput mediale)
Brachialis anticus muscle
M. brachialis
Common tendon of the pronator radii teres, palmaris longus, and flexor carpi radialis muscles
Flexor sublimis digitorum[3] muscle (humeral head)
M. flexor digitorum sublimis (caput humerale)
Flexor profundus digitorum[4] muscle
M. flexor digitorum profundus
Flexor sublimis digitorum[3] muscle (radial head)
M. flexor digitorum sublimis (caput radiale)
2/5

FIG. 569.—THE ORIGIN OF THE PALMAR AND RADIAL MUSCLES OF THE RIGHT FOREARM, AND THEIR RELATIONS TO THE BRACHIALIS ANTICUS MUSCLE IN THE NEIGHBOURHOOD OF THE ANTECUBITAL FOSSA. ANTERIOR ASPECT, THE FOREARM BEING SUPINATED. THE BICIPITO-RADIAL BURSA (*see note* [1] *above*) AND THE INTEROSSEOUS BURSA OF THE ELBOW (*see note* [2] *above*).

The brachialis anticus muscle has been drawn slightly inwards. The two superficial muscles of the radial group, the supinator radii longus and the extensor carpi radialis longior, have been cut away, except for their proximal extremities, which have been turned outwards, in order to lay bare the deep layer of muscles of the radial group: these are the extensor carpi radialis brevior and the supinator radii brevis. The superficial layer of the palmar group of muscles has also been removed.

Musculi antibrachii—Muscles of the forearm.

---

[1] See note to p. 316.

[2] *Interosseous Bursa of the Elbow.*—This bursa is situate in the *bicipital hollow* of the ulna, which lies below the small sigmoid cavity, bounded behind by the supinator ridge and in front by the upper extremity of the interosseous border. In pronation of the hands, the bicipital hollow lodges the tuberosity of the radius and the distal extremity of the biceps tendon; and the interosseous bursa forms a synovial cavity between the two bones. Behind, the sac is in contact with the interosseous membrane and the oblique ligament; projecting forward, it separates the tendon of the brachialis anticus on the inner side from the tendon of the biceps and the upper part of the insertion of the supinator radii brevis on the outer side. Thus the tendon of the biceps at its insertion lies between the bicipitoradial bursa and the interosseous bursa of the elbow. The condition known as "lawn-tennis elbow" depends on inflammation of one or both of these bursæ.—TR.

[3] Or *flexor perforatus* muscle.

[4] Or *flexor perforans* muscle.

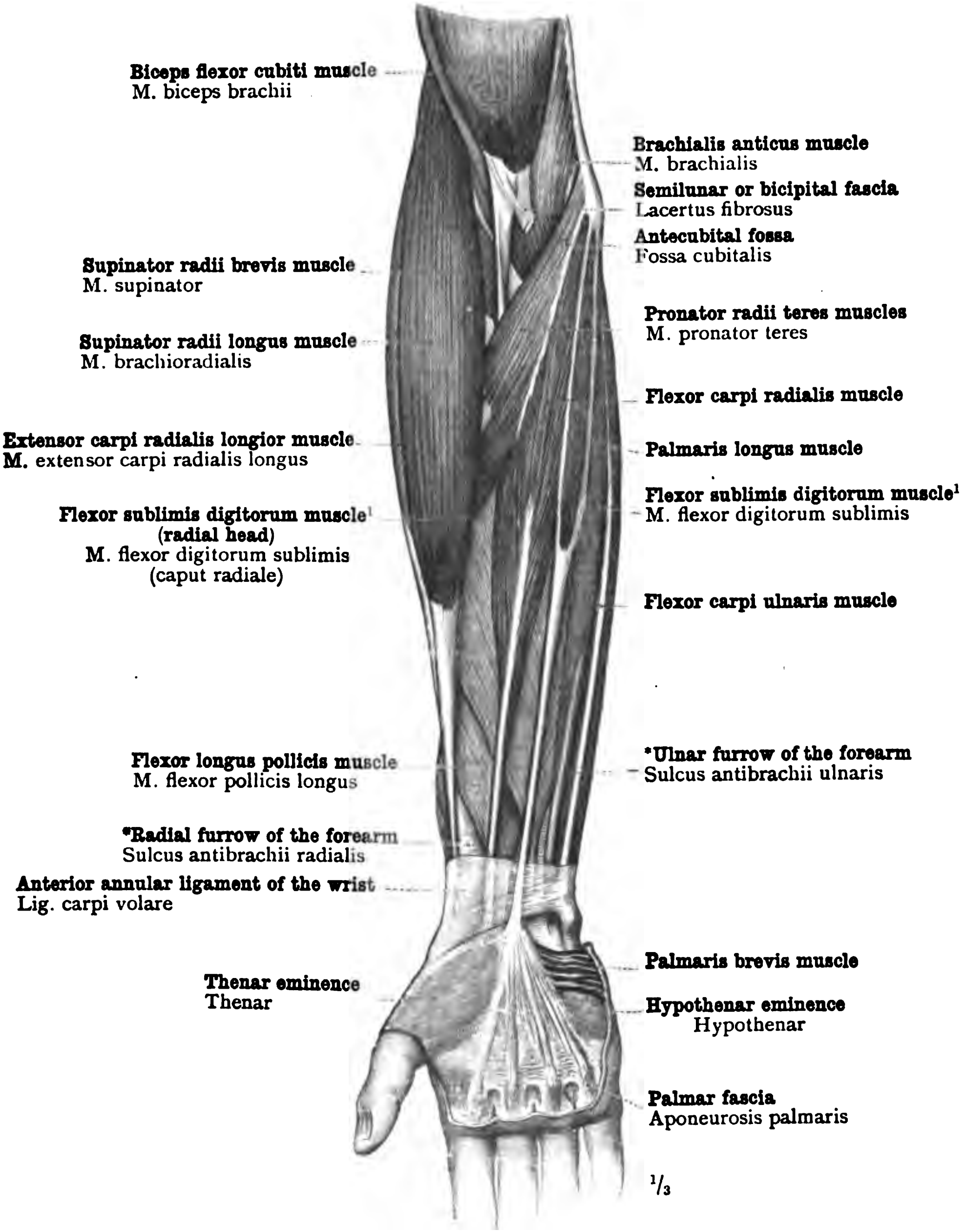

Biceps flexor cubiti muscle
M. biceps brachii
Brachialis anticus muscle
M. brachialis
Semilunar or bicipital fascia
Lacertus fibrosus
Antecubital fossa
Fossa cubitalis
Supinator radii brevis muscle
M. supinator
Pronator radii teres muscles
M. pronator teres
Supinator radii longus muscle
M. brachioradialis
Flexor carpi radialis muscle
Extensor carpi radialis longior muscle
M. extensor carpi radialis longus
Palmaris longus muscle
Flexor sublimis digitorum muscle[1]
M. flexor digitorum sublimis
Flexor sublimis digitorum muscle[1]
(radial head)
M. flexor digitorum sublimis
(caput radiale)
Flexor carpi ulnaris muscle
Flexor longus pollicis muscle
M. flexor pollicis longus
***Ulnar furrow of the forearm**
Sulcus antibrachii ulnaris
***Radial furrow of the forearm**
Sulcus antibrachii radialis
Anterior annular ligament of the wrist
Lig. carpi volare
Palmaris brevis muscle
Thenar eminence
Thenar
Hypothenar eminence
Hypothenar
Palmar fascia
Aponeurosis palmaris
1/3

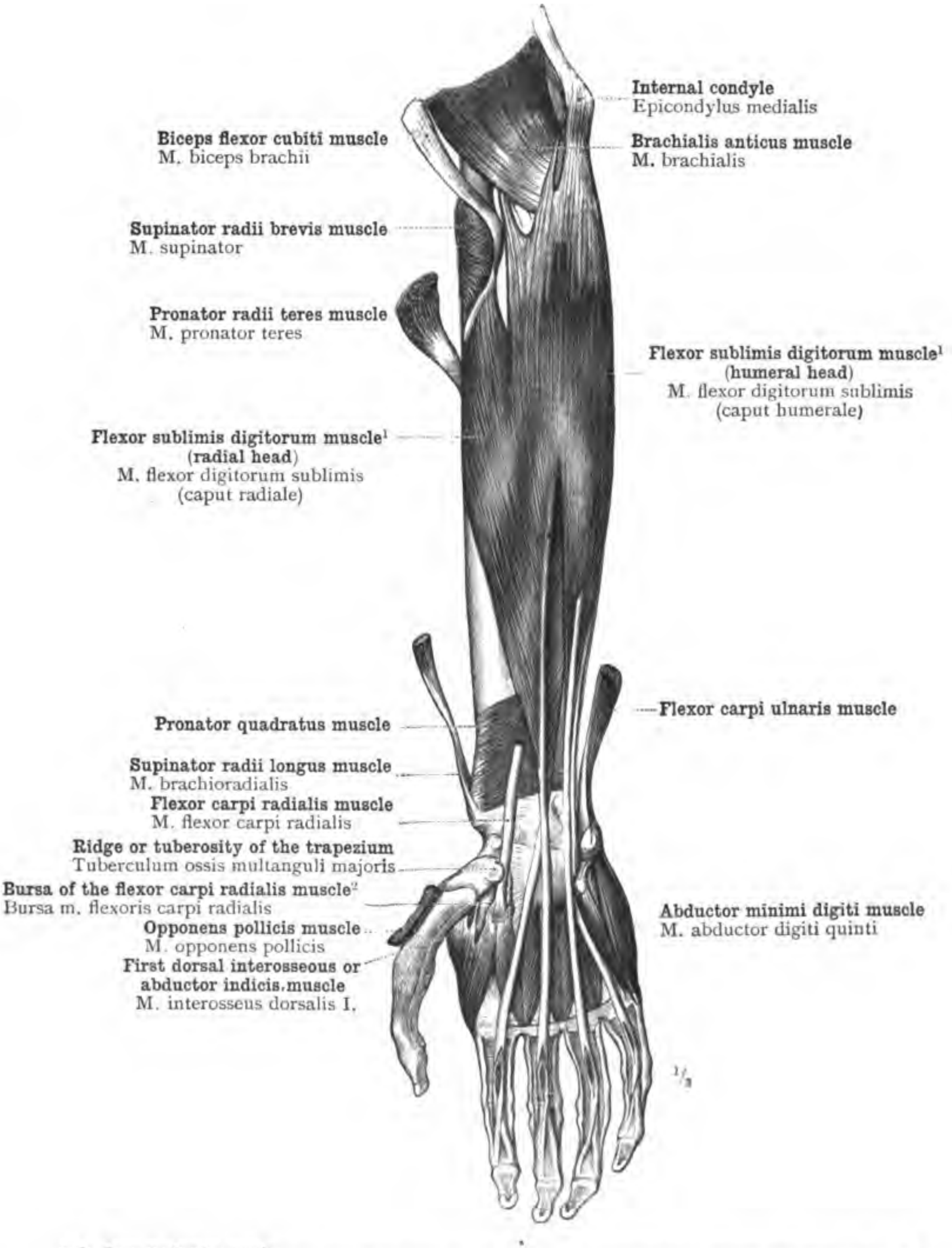
FIG. 570.—THE SUPERFICIAL LAYER (*see note* [2] *above*) OF THE PALMAR GROUP OF MUSCLES OF THE RIGHT FOREARM: PRONATOR RADII TERES MUSCLE, FLEXOR CARPI RADIALIS MUSCLE, PALMARIS LONGUS MUSCLE, FLEXOR CARPI ULNARIS MUSCLE. THE SUPERFICIAL LAYER OF THE RADIAL GROUP OF MUSCLES: SUPINATOR RADII LONGUS MUSCLE, AND A PORTION OF THE EXTENSOR CARPI RADIALIS LONGIOR MUSCLE. THE ANTECUBITAL FOSSA, AND THE ULNAR AND RADIAL FURROWS OF THE FOREARM. LIGAMENTUM CARPI VOLARE, THE ANTERIOR ANNULAR LIGAMENT OF THE WRIST, AND THE PALMAR FASCIA WITH THE PALMARIS BREVIS MUSCLE.

Musculi antibrachii—Muscles of the forearm.

---

[1] Or *flexor perforatus* muscle.

[2] English anatomists group the pronator and flexor muscles of the forearm in *two* layers only: a *superficial*, comprehending the pronator radii teres, flexor carpi radialis, palmaris longus, and flexor sublimis digitorum muscles; and a *deep*, comprehending the flexor profundus digitorum, flexor longus pollicis, and pronator quadratus muscle. The author, however, groups these muscles in *four* layers, as enumerated in the description at the foot of Figs. 570, 571, and 572.—TR.


Internal condyle
Epicondylus medialis
Biceps flexor cubiti muscle
M. biceps brachii
Brachialis anticus muscle
M. brachialis
Supinator radii brevis muscle
M. supinator
Pronator radii teres muscle
M. pronator teres
Flexor sublimis digitorum muscle[1]
(humeral head)
M. flexor digitorum sublimis
(caput humerale)
Flexor sublimis digitorum muscle[1]
(radial head)
M. flexor digitorum sublimis
(caput radiale)
Flexor carpi ulnaris muscle
Pronator quadratus muscle
Supinator radii longus muscle
M. brachioradialis
Flexor carpi radialis muscle
M. flexor carpi radialis
Ridge or tuberosity of the trapezium
Tuberculum ossis multanguli majoris
Bursa of the flexor carpi radialis muscle[2]
Bursa m. flexoris carpi radialis
Opponens pollicis muscle
M. opponens pollicis
First dorsal interosseous or
abductor indicis muscle
M. interosseus dorsalis I.
Abductor minimi digiti muscle
M. abductor digiti quinti
1/3

---

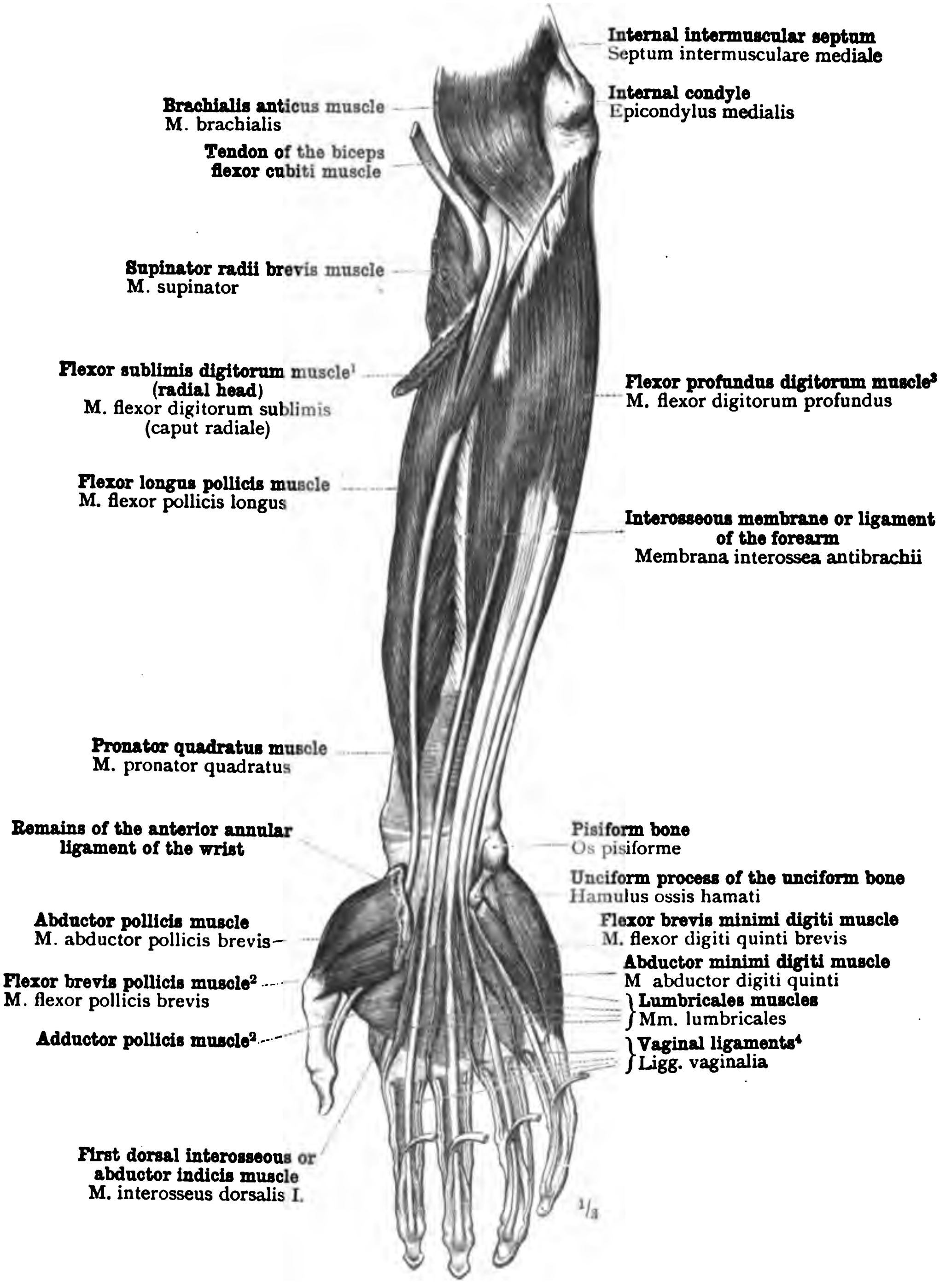
[1] Or *flexor perforatus* muscle.

[2] This bursa lies beneath the tendon of the flexor carpi radialis muscle as it crosses the scaphoid bone and the trapezium.—Tr.

Fig. 571.—The Second Layer (*see note*[2] *to p.* 322) of the Palmar Group of Muscles of the Right Forearm: Flexor Sublimis Digitorum or Flexor Perforatus Muscle. The Distal Attachments (Insertions) of the Tendons of the Flexor Carpi Ulnaris, Flexor Carpi Radialis, and Supinator Radii Longus Muscles. The Superficial Muscles of the Hypothenar Eminence, and the Interosseous Muscles of the Hand that are visible from the Palmar Side. The Bursa of the Flexor Carpi Radialis Muscle (*see note*[2] *above*).

After the removal of the muscles of the superficial layer and the anterior annular ligament of the wrist, the flexor sublimis digitorum muscle was laid bare. In order to show clearly the disposition of the tendons of the flexor sublimis digitorum muscle, the flexor profundus digitorum muscle was removed.

Musculi antibrachii—Muscles of the forearm.


Internal intermuscular septum
Septum intermusculare mediale
Internal condyle
Epicondylus medialis
Brachialis anticus muscle
M. brachialis
Tendon of the biceps flexor cubiti muscle
Supinator radii brevis muscle
M. supinator
Flexor sublimis digitorum muscle[1] **(radial head)**
M. flexor digitorum sublimis (caput radiale)
Flexor profundus digitorum muscle[3]
M. flexor digitorum profundus
Flexor longus pollicis muscle
M. flexor pollicis longus
Interosseous membrane or ligament of the forearm
Membrana interossea antibrachii
Pronator quadratus muscle
M. pronator quadratus
Remains of the anterior annular ligament of the wrist
Pisiform bone
Os pisiforme
Unciform process of the unciform bone
Hamulus ossis hamati
Abductor pollicis muscle
M. abductor pollicis brevis
Flexor brevis minimi digiti muscle
M. flexor digiti quinti brevis
Abductor minimi digiti muscle
M abductor digiti quinti
Flexor brevis pollicis muscle[2]
M. flexor pollicis brevis
Lumbricales muscles
Mm. lumbricales
Adductor pollicis muscle[2]
Vaginal ligaments[4]
Ligg. vaginalia
First dorsal interosseous or abductor indicis muscle
M. interosseus dorsalis I.
1/3

---

[1] Or *flexor perforatus* muscle.

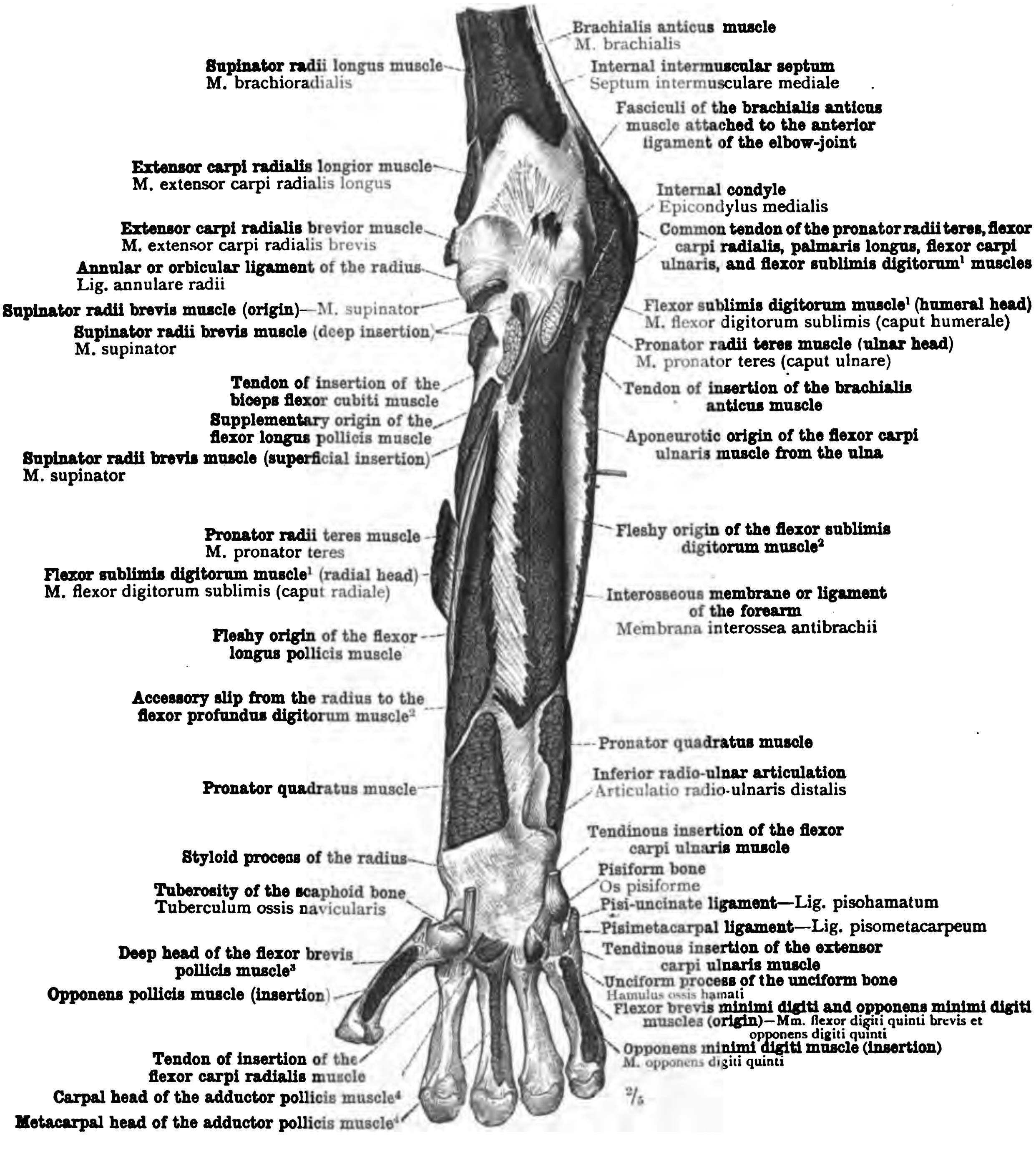
[2] The author adheres to the old nomenclature of the short muscles of the thumb, but that introduced by Cunningham is now generally adopted by English anatomists. Following this writer, the former *adductor pollicis* is called the *adductor pollicis transversus*, and what used to be called the *deep head* of the *flexor brevis pollicis* muscle is divided into two parts. The larger part, known as the *adductor obliquus pollicis*, the largest of the thumb muscles, consists of several slips arising from the upper ends of the second and third metacarpal bones, the os magnum, the anterior carpal ligaments, and the sheath of the flexor carpi radialis muscle; the muscle is inserted, in common with the adductor transversus and the deep head of the flexor brevis, into the inner side of the base of the first phalanx of the thumb. What is now termed the *deep head* of the *flexor brevis pollicis* is a very small slip, deeply placed between the adductor obliquus pollicis and the outer head of the abductor indicis. It arises from the ulnar side of the upper part of the first metacarpal bone, and is inserted as already described.—Tr. See also Figs. 573, 585, and 586.

[3] Or *flexor perforans* muscle.

[4] See note 3 to p. 334.

Fig. 572.—The Third Layer of the Palmar Group of Muscles of the Right Forearm, after the First and Second Layers and the Anterior Annular Ligament of the Wrist have been removed: Flexor Profundus Digitorum or Flexor Perforans Muscle, and Flexor Longus Pollicis Muscle. In the Fourth Layer we see a Portion of the Pronator Quadratus Muscle. Lumbricales Muscles, and the Superficial Muscles of the Thenar and Hypothenar Eminences: Abductor Brevis Pollicis, Adductor Pollicis (*see note* [2] *above*), Flexor Brevis Pollicis, Flexor Brevis Minimi Digiti and Abductor Minimi Digiti Muscles.

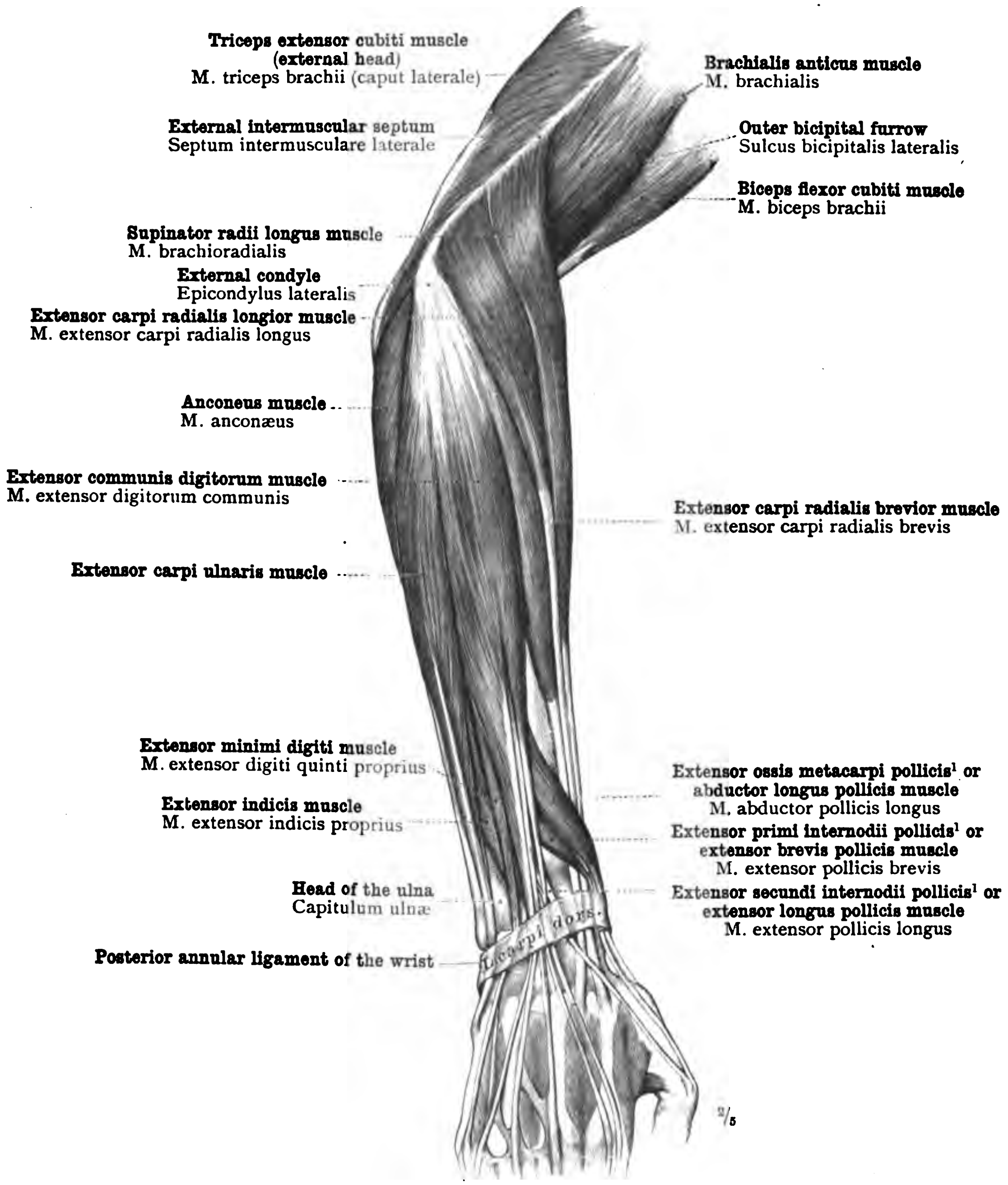
Musculi antibrachii—Muscles of the forearm.


Supinator radii longus muscle
M. brachioradialis
Extensor carpi radialis longior muscle
M. extensor carpi radialis longus
Extensor carpi radialis brevior muscle
M. extensor carpi radialis brevis
Annular or orbicular ligament of the radius
Lig. annulare radii
Supinator radii brevis muscle (origin)—M. supinator
Supinator radii brevis muscle (deep insertion)
M. supinator
Tendon of insertion of the biceps flexor cubiti muscle
Supplementary origin of the flexor longus pollicis muscle
Supinator radii brevis muscle (superficial insertion)
M. supinator
Pronator radii teres muscle
M. pronator teres
Flexor sublimis digitorum muscle[1] (radial head)
M. flexor digitorum sublimis (caput radiale)
Fleshy origin of the flexor longus pollicis muscle
Accessory slip from the radius to the flexor profundus digitorum muscle[2]
Pronator quadratus muscle
Styloid process of the radius
Tuberosity of the scaphoid bone
Tuberculum ossis navicularis
Deep head of the flexor brevis pollicis muscle[3]
Opponens pollicis muscle (insertion)
Tendon of insertion of the flexor carpi radialis muscle
Carpal head of the adductor pollicis muscle[4]
Metacarpal head of the adductor pollicis muscle[4]
Brachialis anticus muscle
M. brachialis
Internal intermuscular septum
Septum intermusculare mediale
Fasciculi of the brachialis anticus muscle attached to the anterior ligament of the elbow-joint
Internal condyle
Epicondylus medialis
Common tendon of the pronator radii teres, flexor carpi radialis, palmaris longus, flexor carpi ulnaris, and flexor sublimis digitorum[1] muscles
Flexor sublimis digitorum muscle[1] (humeral head)
M. flexor digitorum sublimis (caput humerale)
Pronator radii teres muscle (ulnar head)
M. pronator teres (caput ulnare)
Tendon of insertion of the brachialis anticus muscle
Aponeurotic origin of the flexor carpi ulnaris muscle from the ulna
Fleshy origin of the flexor sublimis digitorum muscle[2]
Interosseous membrane or ligament of the forearm
Membrana interossea antibrachii
Pronator quadratus muscle
Inferior radio-ulnar articulation
Articulatio radio-ulnaris distalis
Tendinous insertion of the flexor carpi ulnaris muscle
Pisiform bone
Os pisiforme
Pisi-uncinate ligament—Lig. pisohamatum
Pisimetacarpal ligament—Lig. pisometacarpeum
Tendinous insertion of the extensor carpi ulnaris muscle
Unciform process of the unciform bone
Hamulus ossis hamati
Flexor brevis minimi digiti and opponens minimi digiti muscles (origin)—Mm. flexor digiti quinti brevis et opponens digiti quinti
Opponens minimi digiti muscle (insertion)
M. opponens digiti quinti
2/5

[1] Or *flexor perforatus* muscle.
[2] Or *flexor perforans* muscle.
[3] See note [2] to p. 324.
[4] What the author calls the *carpal head of the adductor pollicis* muscle is part of the *adductor pollicis obliquus* according to Cunningham, whilst what he calls *the metacarpal head of the adductor pollicis* is the *adductor pollicis transversus* of English anatomists. See note [2] to p. 324.

FIG. 573.—ATTACHMENT OF MUSCLES TO THE PALMAR SURFACE OF THE FOREARM AND THE HAND.

Musculi antibrachii—Muscles of the forearm.

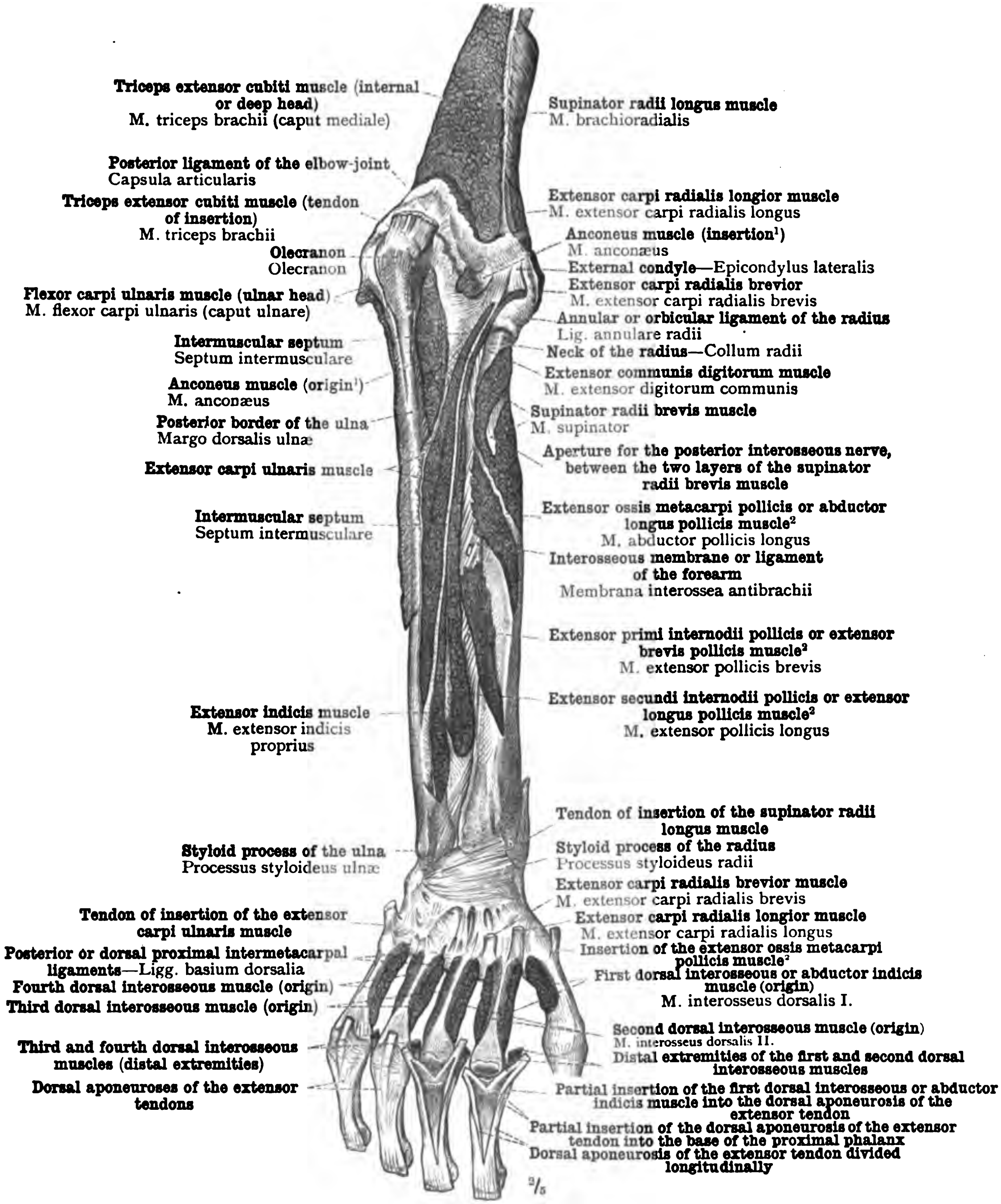

Triceps extensor cubiti muscle (external head)
M. triceps brachii (caput laterale)
External intermuscular septum
Septum intermusculare laterale
Supinator radii longus muscle
M. brachioradialis
External condyle
Epicondylus lateralis
Extensor carpi radialis longior muscle
M. extensor carpi radialis longus
Anconeus muscle
M. anconæus
Extensor communis digitorum muscle
M. extensor digitorum communis
Extensor carpi ulnaris muscle
Extensor minimi digiti muscle
M. extensor digiti quinti proprius
Extensor indicis muscle
M. extensor indicis proprius
Head of the ulna
Capitulum ulnæ
Posterior annular ligament of the wrist
Brachialis anticus muscle
M. brachialis
Outer bicipital furrow
Sulcus bicipitalis lateralis
Biceps flexor cubiti muscle
M. biceps brachii
Extensor carpi radialis brevior muscle
M. extensor carpi radialis brevis
Extensor ossis metacarpi pollicis¹ or abductor longus pollicis muscle
M. abductor pollicis longus
Extensor primi internodii pollicis¹ or extensor brevis pollicis muscle
M. extensor pollicis brevis
Extensor secundi internodii pollicis¹ or extensor longus pollicis muscle
M. extensor pollicis longus
Lig. carpi dors.
2/5

I have given the preference to the old names, as more distinctive and therefore more suitable, of the three extensor muscles of the thumb, *extensor ossis metacarpi pollicis*, *extensor primi internodii pollicis*, and *extensor secundi internodii pollicis*. Quain ("Anatomy," 10th ed.) has, however, adopted the Continental nomenclature in the case of the two latter muscles, which he terms respectively *extensor brevis pollicis* and *extensor longus pollicis*, whilst yet other names have been adopted by Macalister, who terms the extensor of the first phalanx, *extensor pollicis minor*, and the extensor of the second phalanx *extensor pollicis major*. The names used in the text are, however, more familiar to students, both in England and America, and there seems no good reason for any change.

While speaking of these muscles, it may be mentioned that their tendons, viz., those of the extensor ossis metacarpi pollicis and extensor primi internodii pollicis on the radial side, and that of the extensor secundi internodii pollicis on the ulnar side, bound the deep hollow to be seen on the outer (radial) side of the wrist and behind the metacarpal bone of the thumb, when this member is fully extended. This hollow is known as the *tabatière anatomique*, or *anatomical snuff-box* (called by Toldt *foveola radialis*, see Fig. 575). Beneath the tendons of the extensors of the thumb, and across the intervening hollow, the radial artery passes from the front to the back of the wrist, its direction being indicated by a line from the front of the styloid process of the radius to the proximal end of the first interosseous space; and the artery is crossed by the superficial radial vein, which usually forms a distinct prominence in the hollow between the tendons.—Tr.

[2] By English anatomists the supinator and extensor muscles are, like those of the front of the forearm, divided simply into two layers: a *superficial*, containing seven muscles, viz., the supinator radii longus, extensor carpi radialis longior, extensor carpi radialis brevior, extensor communis digitorum, extensor minimi digiti, extensor carpi ulnaris, and anconeus muscles; and a *deep* layer, containing five muscles, viz., the supinator radii brevis, extensor ossis metacarpi pollicis, extensor primi internodii pollicis, extensor secundi internodii pollicis, and extensor indicis muscles. The author's classification of these muscles is to be found in the description at the foot of Figs. 574, 575, and 576.—Tr.

Fig. 574.—The Superficial Layer (*see note* [2] *above*) of the Dorsal Group of Muscles of the Right Forearm: Extensor Communis Digitorum, Extensor Carpi Ulnaris, and Anconeus Muscles. The Radial Group of Muscles seen from the Dorsal Side, and the Deep Layer of Muscles of the Dorsal Group that are visible in the Distal Portion of the Forearm between the Superficial Layer of Dorsal Muscles nd the Radial Muscles: Extensor Carpi Radialis Longior and Extensor Carpi Radialis Brevior (Muscles of the Radial Group); Extensor Ossis Metacarpi Pollicis, Extensor Primi Internodii Pollicis, and Extensor Secundi Internodii Pollicis (Muscles of the Deep Dorsal Layer). Ligamentum Carpi Dorsale, the Posterior Annular Ligament of the Wrist.


Triceps extensor cubiti muscle (internal or deep head)
M. triceps brachii (caput mediale)
Posterior ligament of the elbow-joint
Capsula articularis
Triceps extensor cubiti muscle (tendon of insertion)
M. triceps brachii
Olecranon
Olecranon
Flexor carpi ulnaris muscle (ulnar head)
M. flexor carpi ulnaris (caput ulnare)
Intermuscular septum
Septum intermusculare
Anconeus muscle (origin[1])
M. anconæus
Posterior border of the ulna
Margo dorsalis ulnæ
Extensor carpi ulnaris muscle
Intermuscular septum
Septum intermusculare
Extensor indicis muscle
M. extensor indicis proprius
Styloid process of the ulna
Processus styloideus ulnæ
Tendon of insertion of the extensor carpi ulnaris muscle
Posterior or dorsal proximal intermetacarpal ligaments—Ligg. basium dorsalia
Fourth dorsal interosseous muscle (origin)
Third dorsal interosseous muscle (origin)
Third and fourth dorsal interosseous muscles (distal extremities)
Dorsal aponeuroses of the extensor tendons
Supinator radii longus muscle
M. brachioradialis
Extensor carpi radialis longior muscle
M. extensor carpi radialis longus
Anconeus muscle (insertion[1])
M. anconæus
External condyle—Epicondylus lateralis
Extensor carpi radialis brevior
M. extensor carpi radialis brevis
Annular or orbicular ligament of the radius
Lig. annulare radii
Neck of the radius—Collum radii
Extensor communis digitorum muscle
M. extensor digitorum communis
Supinator radii brevis muscle
M. supinator
Aperture for the posterior interosseous nerve, between the two layers of the supinator radii brevis muscle
Extensor ossis metacarpi pollicis or abductor longus pollicis muscle[2]
M. abductor pollicis longus
Interosseous membrane or ligament of the forearm
Membrana interossea antibrachii
Extensor primi internodii pollicis or extensor brevis pollicis muscle[2]
M. extensor pollicis brevis
Extensor secundi internodii pollicis or extensor longus pollicis muscle[2]
M. extensor pollicis longus
Tendon of insertion of the supinator radii longus muscle
Styloid process of the radius
Processus styloideus radii
Extensor carpi radialis brevior muscle
M. extensor carpi radialis brevis
Extensor carpi radialis longior muscle
M. extensor carpi radialis longus
Insertion of the extensor ossis metacarpi pollicis muscle[2]
First dorsal interosseous or abductor indicis muscle (origin)
M. interosseus dorsalis I.
Second dorsal interosseous muscle (origin)
M. interosseus dorsalis II.
Distal extremities of the first and second dorsal interosseous muscles
Partial insertion of the first dorsal interosseous or abductor indicis muscle into the dorsal aponeurosis of the extensor tendon
Partial insertion of the dorsal aponeurosis of the extensor tendon into the base of the proximal phalanx
Dorsal aponeurosis of the extensor tendon divided longitudinally
2/5

[1] See note [2] to p. 319.

[2] See note [1] to p. 326.

FIG. 577.—ATTACHMENT OF MUSCLES TO THE DORSAL SURFACE OF THE FOREARM AND THE HAND.

Musculi antibrachii—Muscles of the forearm.

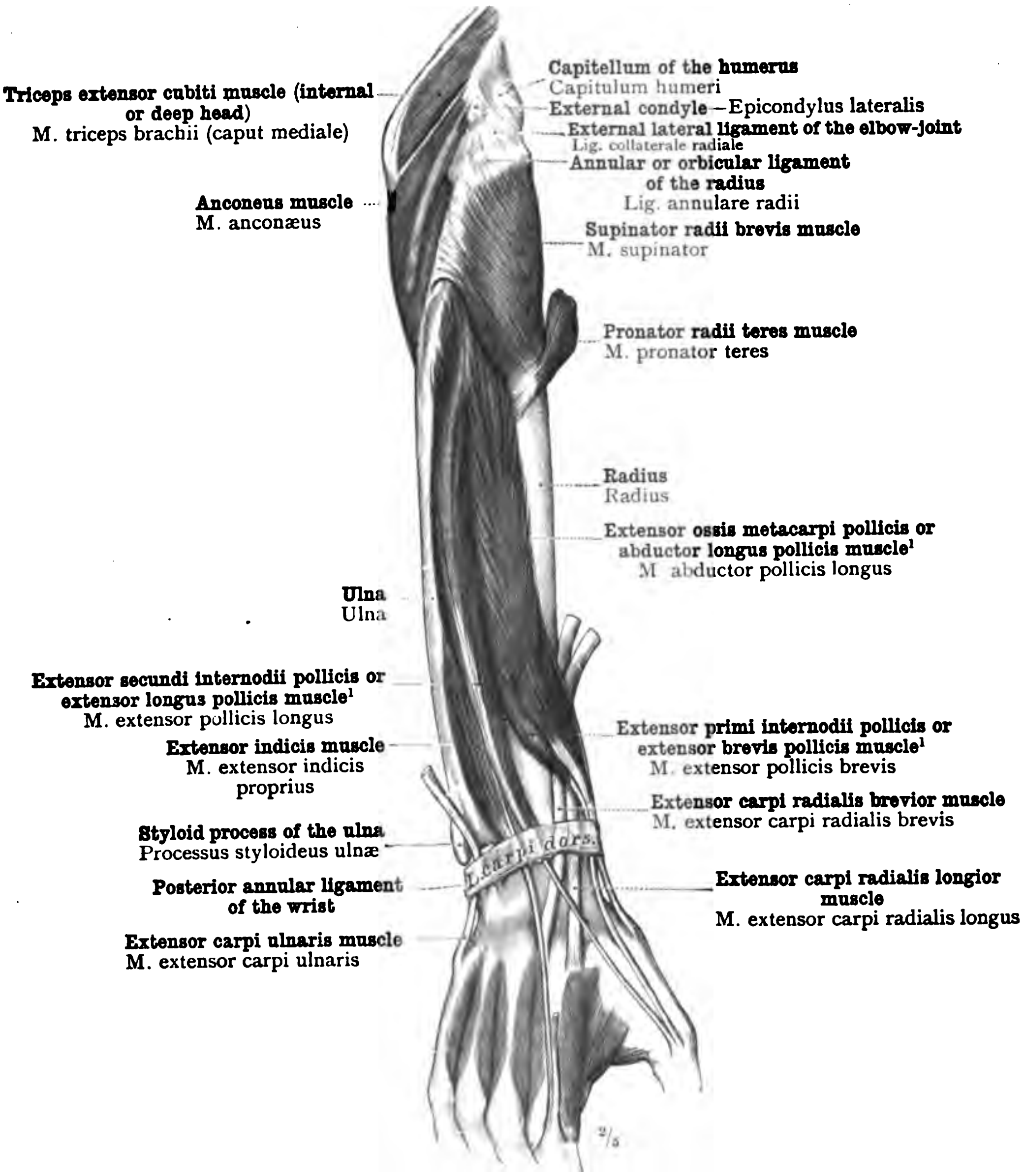

Triceps extensor cubiti muscle (internal or deep head)
M. triceps brachii (caput mediale)
Anconeus muscle
M. anconæus
Ulna
Ulna
Extensor secundi internodii pollicis or extensor longus pollicis muscle¹
M. extensor pollicis longus
Extensor indicis muscle
M. extensor indicis proprius
Styloid process of the ulna
Processus styloideus ulnæ
Posterior annular ligament of the wrist
Extensor carpi ulnaris muscle
M. extensor carpi ulnaris
Capitellum of the humerus
Capitulum humeri
External condyle—Epicondylus lateralis
External lateral ligament of the elbow-joint
Lig. collaterale radiale
Annular or orbicular ligament of the radius
Lig. annulare radii
Supinator radii brevis muscle
M. supinator
Pronator radii teres muscle
M. pronator teres
Radius
Radius
Extensor ossis metacarpi pollicis or abductor longus pollicis muscle¹
M. abductor pollicis longus
Extensor primi internodii pollicis or extensor brevis pollicis muscle¹
M. extensor pollicis brevis
Extensor carpi radialis brevior muscle
M. extensor carpi radialis brevis
Extensor carpi radialis longior muscle
M. extensor carpi radialis longus
L. carpi dors.
²/₃

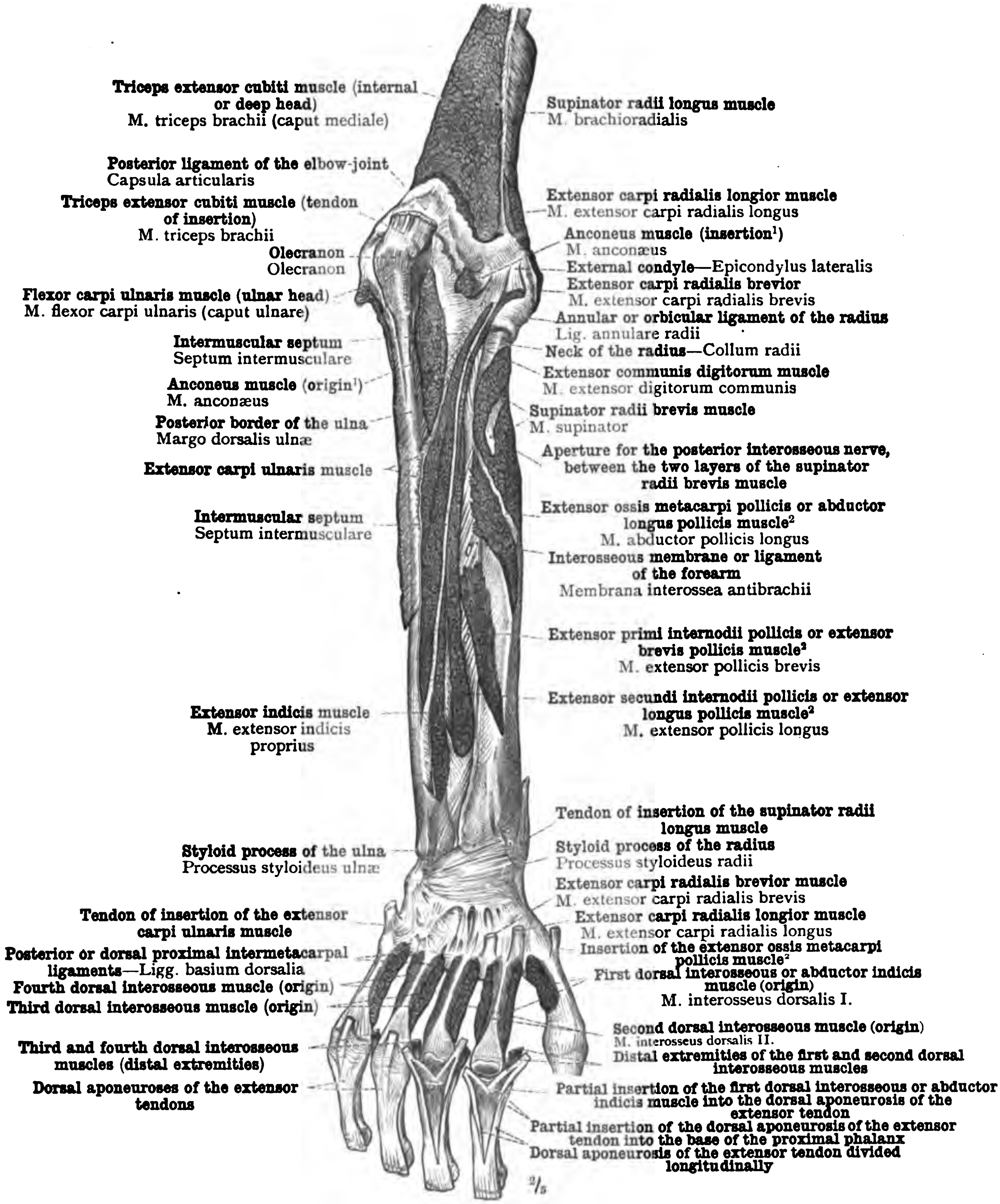
FIG. 576.—THE DEEP LAYER OF THE DORSAL GROUP OF MUSCLES OF THE RIGHT FOREARM, DISPLAYED BY THE REMOVAL OF THE EXTENSOR COMMUNIS DIGITORUM AND THE EXTENSOR CARPI ULNARIS MUSCLES: EXTENSOR OSSIS METACARPI POLLICIS, EXTENSOR PRIMI INTERNODII POLLICIS, EXTENSOR SECUNDI INTERNODII POLLICIS, AND EXTENSOR INDICIS MUSCLES.

In the proximal segment of the pronated forearm, the supinator radii brevis muscle and the anconeus muscle are seen.

Musculi antibrachii—Muscles of the forearm.

---

[1] See note to p. 326.

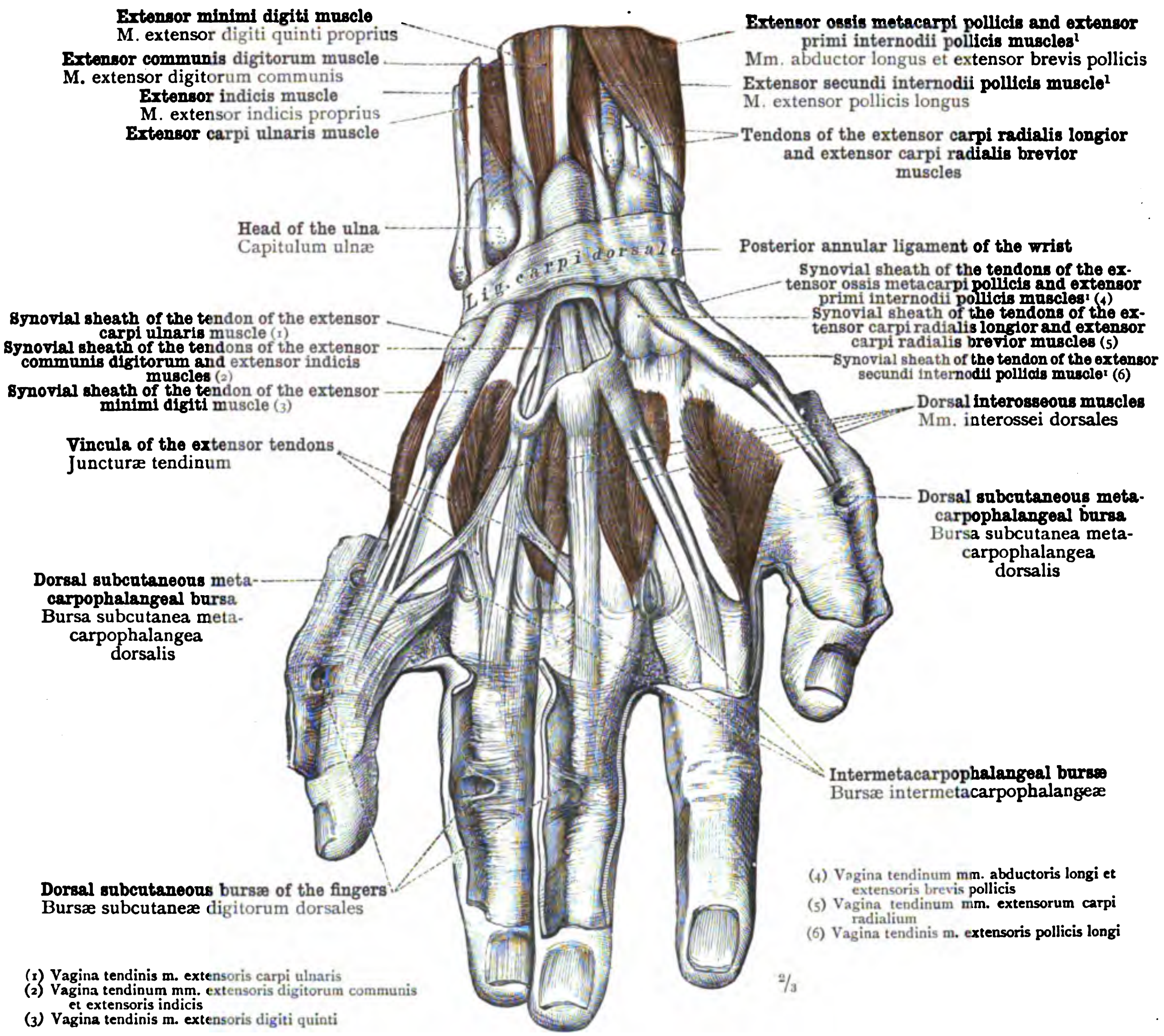

Triceps extensor cubiti muscle (internal or deep head) M. triceps brachii (caput mediale)
Posterior ligament of the elbow-joint Capsula articularis
Triceps extensor cubiti muscle (tendon of insertion) M. triceps brachii
Olecranon Olecranon
Flexor carpi ulnaris muscle (ulnar head) M. flexor carpi ulnaris (caput ulnare)
Intermuscular septum Septum intermusculare
Anconeus muscle (origin[1]) M. anconæus
Posterior border of the ulna Margo dorsalis ulnæ
Extensor carpi ulnaris muscle
Intermuscular septum Septum intermusculare
Extensor indicis muscle M. extensor indicis proprius
Styloid process of the ulna Processus styloideus ulnæ
Tendon of insertion of the extensor carpi ulnaris muscle
Posterior or dorsal proximal intermetacarpal ligaments—Ligg. basium dorsalia
Fourth dorsal interosseous muscle (origin)
Third dorsal interosseous muscle (origin)
Third and fourth dorsal interosseous muscles (distal extremities)
Dorsal aponeuroses of the extensor tendons
Supinator radii longus muscle M. brachioradialis
Extensor carpi radialis longior muscle M. extensor carpi radialis longus
Anconeus muscle (insertion[1]) M. anconæus
External condyle—Epicondylus lateralis
Extensor carpi radialis brevior M. extensor carpi radialis brevis
Annular or orbicular ligament of the radius Lig. annulare radii
Neck of the radius—Collum radii
Extensor communis digitorum muscle M. extensor digitorum communis
Supinator radii brevis muscle M. supinator
Aperture for the posterior interosseous nerve, between the two layers of the supinator radii brevis muscle
Extensor ossis metacarpi pollicis or abductor longus pollicis muscle[2] M. abductor pollicis longus
Interosseous membrane or ligament of the forearm Membrana interossea antibrachii
Extensor primi internodii pollicis or extensor brevis pollicis muscle[2] M. extensor pollicis brevis
Extensor secundi internodii pollicis or extensor longus pollicis muscle[2] M. extensor pollicis longus
Tendon of insertion of the supinator radii longus muscle
Styloid process of the radius Processus styloideus radii
Extensor carpi radialis brevior muscle M. extensor carpi radialis brevis
Extensor carpi radialis longior muscle M. extensor carpi radialis longus
Insertion of the extensor ossis metacarpi pollicis muscle[2]
First dorsal interosseous or abductor indicis muscle (origin) M. interosseus dorsalis I.
Second dorsal interosseous muscle (origin) M. interosseus dorsalis II.
Distal extremities of the first and second dorsal interosseous muscles
Partial insertion of the first dorsal interosseous or abductor indicis muscle into the dorsal aponeurosis of the extensor tendon
Partial insertion of the dorsal aponeurosis of the extensor tendon into the base of the proximal phalanx
Dorsal aponeurosis of the extensor tendon divided longitudinally
2/5

[1] See note [2] to p. 319.

[2] See note [1] to p. 326.

FIG. 577.—ATTACHMENT OF MUSCLES TO THE DORSAL SURFACE OF THE FOREARM AND THE HAND.

Musculi antibrachii—Muscles of the forearm.

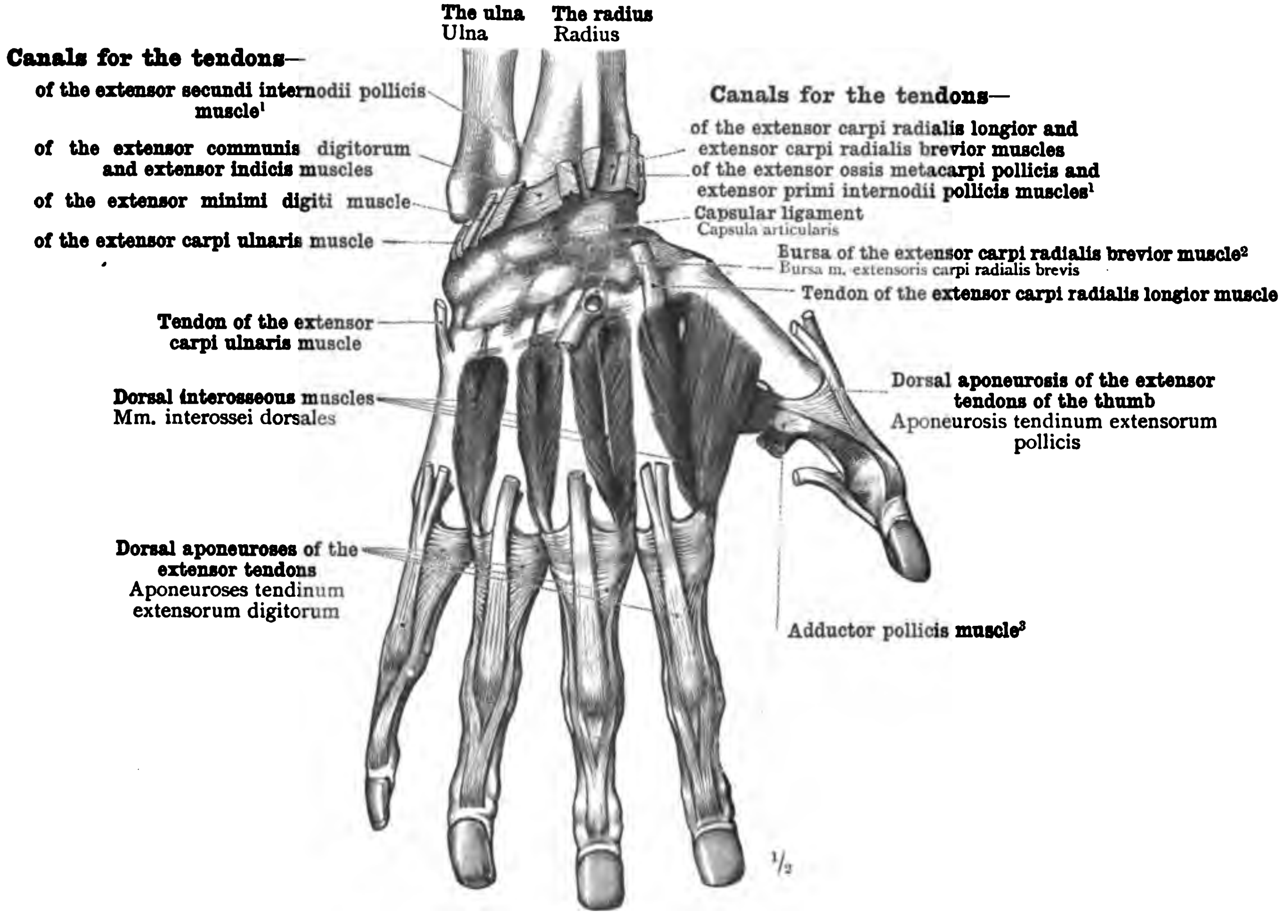

Extensor minimi digiti muscle
M. extensor digiti quinti proprius
Extensor communis digitorum muscle
M. extensor digitorum communis
Extensor indicis muscle
M. extensor indicis proprius
Extensor carpi ulnaris muscle
Head of the ulna
Capitulum ulnæ
Lig. carpi dorsale
Synovial sheath of the tendon of the extensor carpi ulnaris muscle (1)
Synovial sheath of the tendons of the extensor communis digitorum and extensor indicis muscles (2)
Synovial sheath of the tendon of the extensor minimi digiti muscle (3)
Vincula of the extensor tendons
Juncturæ tendinum
Dorsal subcutaneous metacarpophalangeal bursa
Bursa subcutanea metacarpophalangea dorsalis
Dorsal subcutaneous bursæ of the fingers
Bursæ subcutaneæ digitorum dorsales
(1) Vagina tendinis m. extensoris carpi ulnaris
(2) Vagina tendinum mm. extensoris digitorum communis et extensoris indicis
(3) Vagina tendinis m. extensoris digiti quinti
Extensor ossis metacarpi pollicis and extensor primi internodii pollicis muscles¹
Mm. abductor longus et extensor brevis pollicis
Extensor secundi internodii pollicis muscle¹
M. extensor pollicis longus
Tendons of the extensor carpi radialis longior and extensor carpi radialis brevior muscles
Posterior annular ligament of the wrist
Synovial sheath of the tendons of the extensor ossis metacarpi pollicis and extensor primi internodii pollicis muscles¹ (4)
Synovial sheath of the tendons of the extensor carpi radialis longior and extensor carpi radialis brevior muscles (5)
Synovial sheath of the tendon of the extensor secundi internodii pollicis muscle¹ (6)
Dorsal interosseous muscles
Mm. interossei dorsales
Dorsal subcutaneous metacarpophalangeal bursa
Bursa subcutanea metacarpophalangea dorsalis
Intermetacarpophalangeal bursæ
Bursæ intermetacarpophalangeæ
(4) Vagina tendinum mm. abductoris longi et extensoris brevis pollicis
(5) Vagina tendinum mm. extensorum carpi radialium
(6) Vagina tendinis m. extensoris pollicis longi
2/3

[1] See note [1] to p. 326.

FIG. 578.—THE DISPOSITION OF THE EXTENSOR TENDONS AT THE BACK OF THE WRIST AND HAND, AND THE SYNOVIAL SHEATHS OF THESE TENDONS. RIGHT HAND. THE CONNEXIONS BETWEEN THE EXTENSOR TENDONS (VINCULA) ON THE DORSUM OF THE HAND, AND THE DORSAL APONEUROSES OF THE EXTENSOR TENDONS. THE INTERMETACARPOPHALANGEAL BURSÆ, THE DORSAL SUBCUTANEOUS METACARPOPHALANGEAL BURSÆ, AND THE DORSAL SUBCUTANEOUS BURSÆ OF THE FINGERS. THE DORSAL INTEROSSEOUS MUSCLES.

The synovial sheaths of the tendons were injected with strong alcohol before dissection. A portion of the posterior wall has been removed from the synovial sheath of the tendons of the extensor communis digitorum and extensor indicis muscles.

Musculi manus—Muscles of the hand.


The ulna
Ulna
The radius
Radius
Canals for the tendons—
of the extensor secundi internodii pollicis muscle¹
of the extensor communis digitorum and extensor indicis muscles
of the extensor minimi digiti muscle
of the extensor carpi ulnaris muscle
Canals for the tendons—
of the extensor carpi radialis longior and extensor carpi radialis brevior muscles
of the extensor ossis metacarpi pollicis and extensor primi internodii pollicis muscles¹
Capsular ligament
Capsula articularis
Bursa of the extensor carpi radialis brevior muscle²
Bursa m. extensoris carpi radialis brevis
Tendon of the extensor carpi radialis longior muscle
Tendon of the extensor carpi ulnaris muscle
Dorsal interosseous muscles
Mm. interossei dorsales
Dorsal aponeurosis of the extensor tendons of the thumb
Aponeurosis tendinum extensorum pollicis
Dorsal aponeuroses of the extensor tendons
Aponeuroses tendinum extensorum digitorum
Adductor pollicis muscle³
1/2

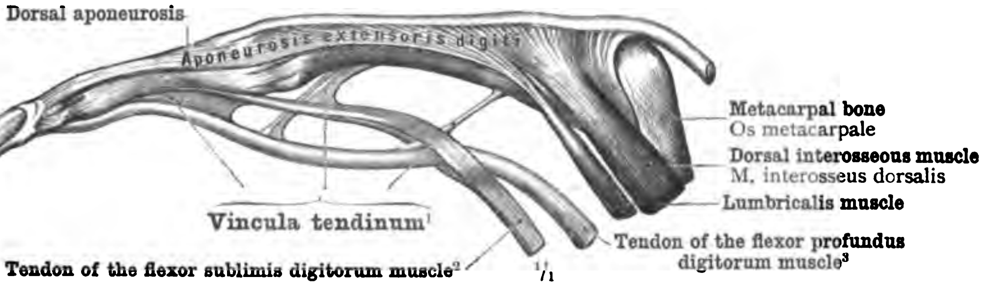
[1] See note [1] to p. 326.

[2] This bursa is situate beneath the tendon close to its insertion.—Tr.

[3] See note [2] to p. 324.

FIG. 579.—THE DORSAL APONEUROSES OF THE EXTENSOR TENDONS. RIGHT HAND. DORSAL INTEROSSEOUS MUSCLES.

The osseo-fibrous canals for the extensor tendons have been opened by the removal of the posterior annular ligament of the wrist. The distal extremity of the tendon of the extensor carpi radialis brevior muscle has been turned downwards, in order to display the bursa that lies beneath it.


Dorsal aponeurosis
Aponeurosis extensoris digiti
Metacarpal bone
Os metacarpale
Dorsal interosseous muscle
M. interosseus dorsalis
Lumbricalis muscle
Vincula tendinum¹
Tendon of the flexor profundus digitorum muscle³
Tendon of the flexor sublimis digitorum muscle²
1/1

[1] *Vincula Tendinum.*—These are folds of synovial membrane, connecting the flexor tendons to one another and to the phalanges. Their nomenclature is somewhat variable. Macalister writes (*op. cit.*, p. 308): "The synovial membrane of the digital sheath enwraps the two tendons at first, and the deep tendon is tied to the bone by one or two flat bands (*retinacula*). Where the tendons pass each other they are generally free, but when the deep tendon has passed through, it is tied to the superficial tendon, now underlying it, by a soft round cord (*vinculum*). Finally the deep tendon is tied to the distal end of the second phalanx by a flat *retinaculum inferius*." According to Quain (*op. cit.*, vol. ii., p. 228), "The synovial membrane forms small folds (*vincula accessoria tendinum*) between the tendons and the bones. There are two sets of these: the one, *ligamenta brevia*, broad and membranous, passing between the tendons near their insertion and the lower part of the phalanx immediately above; the other, *ligamenta longa*, slender and less constant bands, joining the tendons at a higher level. Contained in the ligamentum breve of the deep flexor is a small band of yellow elastic tissue (*vinculum subflavum*), which stretches from the tendon to the head of the second phalanx, and may assist in drawing down the tendon after flexion of the fingers."—Tr.

[2] Or *flexor perforatus* muscle.

[3] Or *flexor perforans* muscle.

FIG. 580.—THE DISTAL EXTREMITIES OF THE FLEXOR AND EXTENSOR TENDONS OF THE RIGHT MIDDLE FINGER SEEN FROM THE RADIAL SIDE. THE RELATION OF THE LUMBRICALIS AND OF THE INTEROSSEOUS MUSCLE TO THE DORSAL APONEUROSIS OF THE EXTENSOR TENDON. VINCULA TENDINUM (*see note* [1] *above*).

Musculi manus—Muscles of the hand.

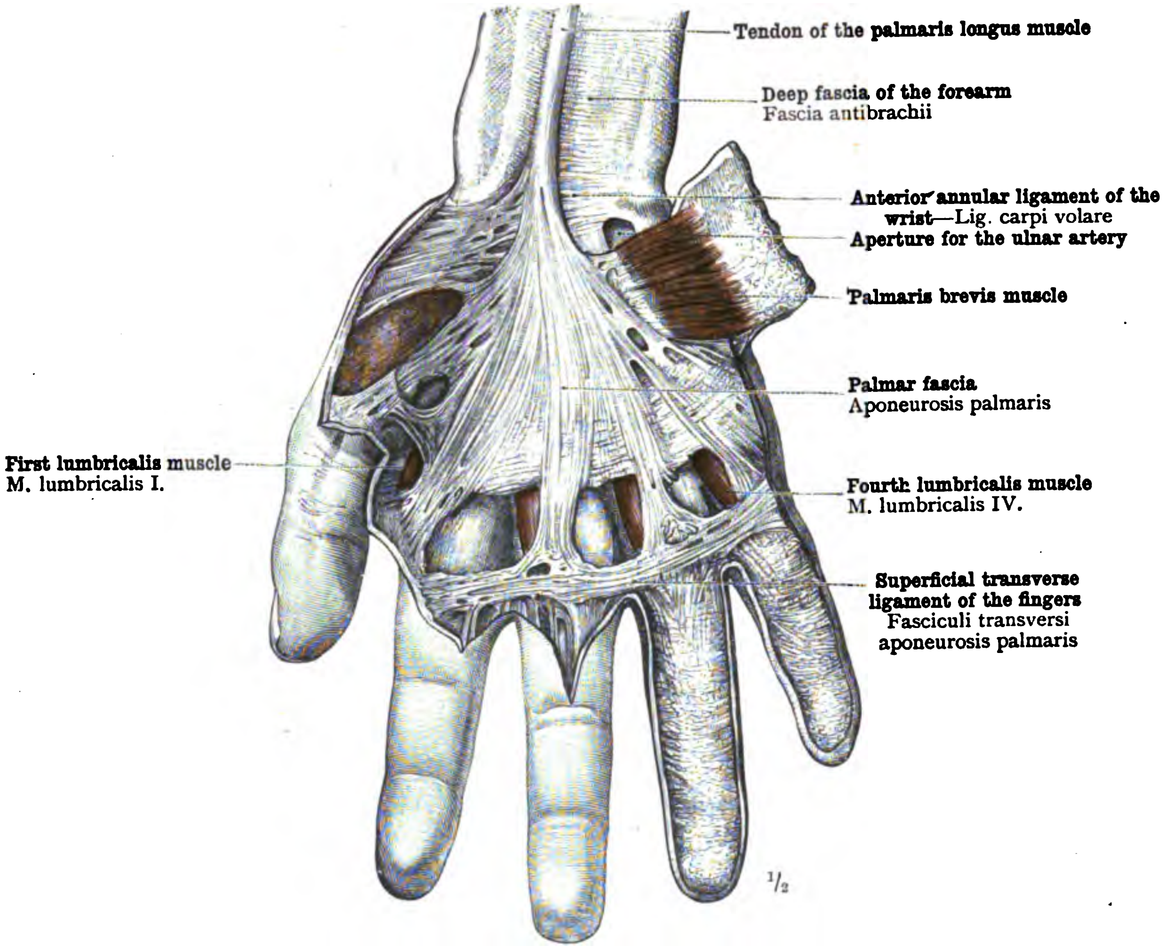

Tendon of the palmaris longus muscle
Deep fascia of the forearm
Fascia antibrachii
Anterior annular ligament of the wrist—Lig. carpi volare
Aperture for the ulnar artery
Palmaris brevis muscle
Palmar fascia
Aponeurosis palmaris
First lumbricalis muscle
M. lumbricalis I.
Fourth lumbricalis muscle
M. lumbricalis IV.
Superficial transverse ligament of the fingers
Fasciculi transversi aponeurosis palmaris
1/2

FIG. 581.—APONEUROSIS PALMARIS, DEEP FASCIA OF THE PALM, OR PALMAR FASCIA; THE INSERTION OF THE TENDON OF THE PALMARIS LONGUS MUSCLE INTO THIS FASCIA; THE PROCESSES PASSING FROM THE PALMAR FASCIA TO THE DIGITAL SHEATHS; THE SUPERFICIAL TRANSVERSE LIGAMENT OF THE FINGERS. PALMARIS BREVIS MUSCLE.

Musculi manus—Muscles of the hand.

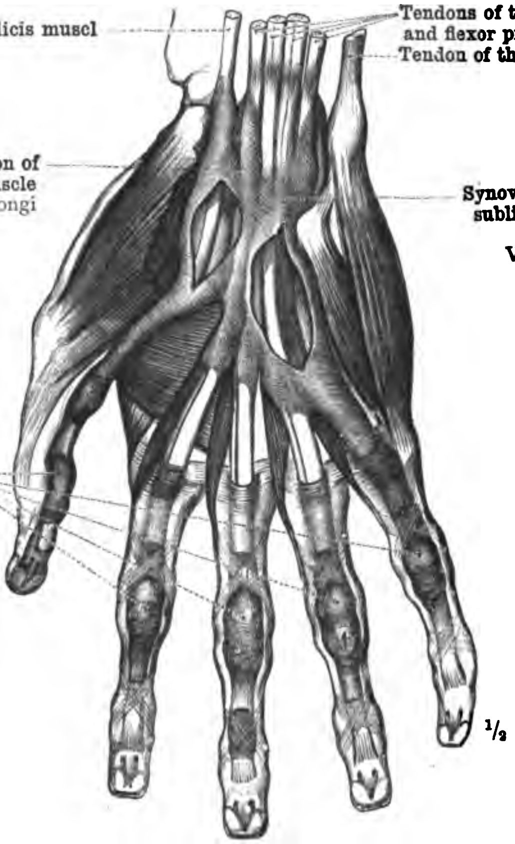

Tendon of the flexor longus pollicis muscl
Tendons of the flexor sublimis digitorum[1] and flexor profundus digitorum[2] muscles
Tendon of the flexor carpi ulnaris muscle
Synovial sheath of the tendon of the flexor longus pollicis muscle
Vagina m. flexoris pollicis longi
Synovial sheath of the tendons of the flexor sublimis digitorum[1] and flexor profundus digitorum[2] muscles
Vagina tendinum mm. flexorum communium
Digital synovial sheaths of the flexor tendons
Vaginæ tendinum digitales
1/2

FIG. 582.—THE SYNOVIAL SHEATHS OF THE FLEXOR TENDONS,[3] PREPARED AFTER INJECTING THEM WITH ALCOHOL. RIGHT HAND.

The palmar fascia and the anterior annular ligament of the wrist have been removed.

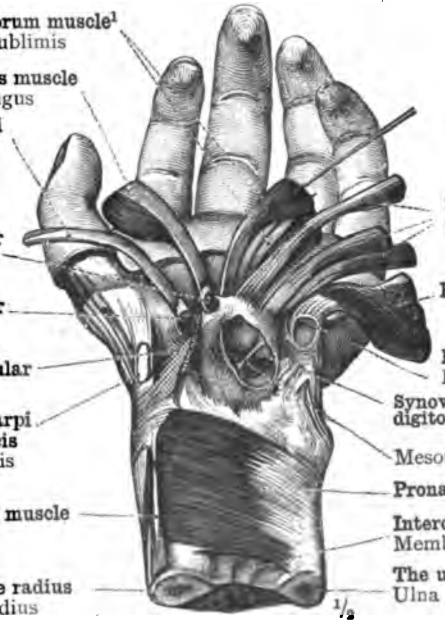

Flexor sublimis digitorum muscle[1]
M. flexor digitorum sublimis
Flexor longus pollicis muscle
M. flexor pollicis longus
Tendon of the flexor carpi radialis muscle
Synovial sheath of the tendon of the flexor longus pollicis muscle
Vagina tendinis m. flexoris pollicis longi
Synovial sheath of the tendon of the flexor carpi radialis muscle
Vagina tendinis m. flexoris carpi radialis
Remains of the anterior annular ligament of the wrist
Synovial sheath of the extensor ossis metacarpi pollicis and extensor primi internodii pollicis muscles[4]—Vagina tendinum mm. abductoris longi et extensoris brevis pollicis
Tendon of the supinator radii longus muscle
The radius
Radius
Flexor profundus digitorum muscle[2]
M. flexor digitorum profundus
Flexor carpi ulnaris muscle
Bursa of the flexor carpi ulnaris muscle[5]
Bursa m. flexoris carpi ulnaris
Synovial sheaths of the tendons of the flexor sublimis digitorum[1] and flexor profundus digitorum[2] muscles
Vagina tendinum mm. flexorum communium
Mesotenon[6]
Pronator quadratus muscle
Interosseous membrane or ligament of the forearm
Membrana interossea antibrachii
The ulna
Ulna
1/2

FIG. 583.—THE SYNOVIAL SHEATHS OF THE FLEXOR TENDONS, DISPLAYED, AFTER THE REMOVAL OF THE ANTERIOR ANNULAR LIGAMENT OF THE WRIST, BY TURNING DOWN THE FLEXOR TENDONS INTO THE PALM OF THE HAND. LEFT HAND.

The synovial sheaths and bursæ have all been opened.

Musculi manus—Muscles of the hand.

---

[1] Or *flexor perforatus* muscle.

[2] Or *flexor perforans* muscle.

[3] The synovial sheath of the common flexors in the canal of the carpus beneath the anterior annular ligament of the wrist is sometimes known as the *great carpal bursa*. It extends upwards to the level of the radiocarpal articulation, and downwards about halfway along the metacarpal bones ending in blind pouches in the case of the index, middle, and ring fingers, the digital sheaths of which are separate; in the case of the little finger, however, the digital sheath of the flexor tendon is continuous with the great carpal bursa. The sheath of the flexor longus pollicis is entirely distinct in the carpal canal from the sheath of the common flexors.—TR.

[4] See note [1] to p. 326.

[5] This bursa is situate beneath the tendon close to its insertion.—TR.

[6] *Mesotenon.*—This term is not used by English anatomists. The synovial sheath of the common flexors beneath the anterior annular ligament is in most cases divided by an incomplete septum attached to the middle finger tendon of the deep flexor. It is to this structure that the term *mesotenon* is applied.—TR.

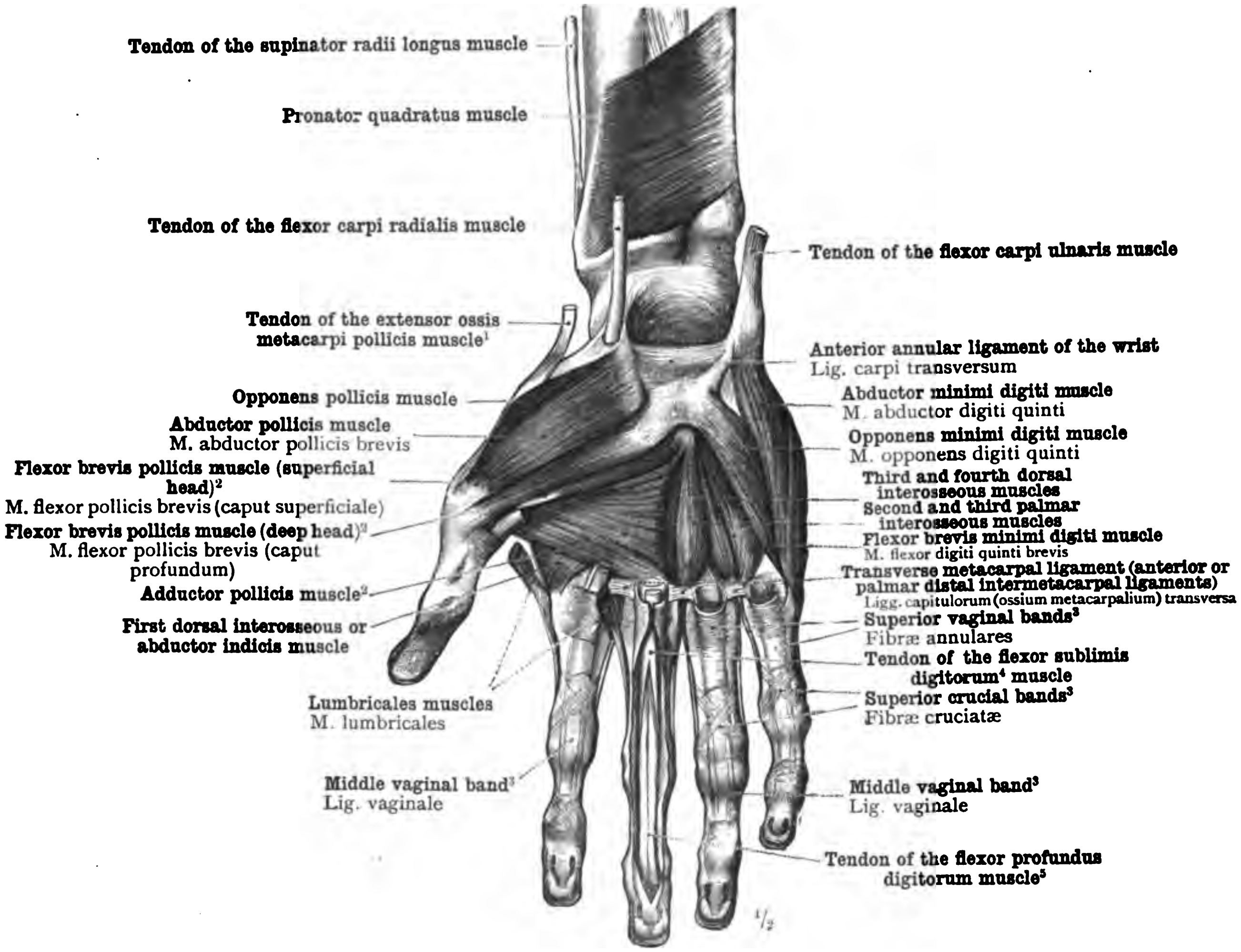

Tendon of the supinator radii longus muscle
Pronator quadratus muscle
Tendon of the flexor carpi radialis muscle
Tendon of the extensor ossis metacarpi pollicis muscle[1]
Opponens pollicis muscle
Abductor pollicis muscle
M. abductor pollicis brevis
Flexor brevis pollicis muscle (superficial head)[2]
M. flexor pollicis brevis (caput superficiale)
Flexor brevis pollicis muscle (deep head)[2]
M. flexor pollicis brevis (caput profundum)
Adductor pollicis muscle[2]
First dorsal interosseous or abductor indicis muscle
Lumbricales muscles
M. lumbricales
Middle vaginal band[3]
Lig. vaginale
Tendon of the flexor carpi ulnaris muscle
Anterior annular ligament of the wrist
Lig. carpi transversum
Abductor minimi digiti muscle
M. abductor digiti quinti
Opponens minimi digiti muscle
M. opponens digiti quinti
Third and fourth dorsal interosseous muscles
Second and third palmar interosseous muscles
Flexor brevis minimi digiti muscle
M. flexor digiti quinti brevis
Transverse metacarpal ligament (anterior or palmar distal intermetacarpal ligaments)
Ligg. capitulorum (ossium metacarpalium) transversa
Superior vaginal bands[3]
Fibræ annulares
Tendon of the flexor sublimis digitorum[4] muscle
Superior crucial bands[3]
Fibræ cruciatæ
Middle vaginal band[3]
Lig. vaginale
Tendon of the flexor profundus digitorum muscle[5]
1/2

FIG. 584.—THE SUPERFICIAL LAYER OF MUSCLES OF THE THENAR EMINENCE: ABDUCTOR POLLICIS MUSCLE; THE SUPERFICIAL HEAD AND A PORTION OF THE DEEP HEAD OF THE FLEXOR BREVIS POLLICIS MUSCLE (*see note* [2] *to p.* 324). THE SUPERFICIAL MUSCLES OF THE HYPOTHENAR EMINENCE: ABDUCTOR MINIMI DIGITI AND FLEXOR BREVIS MINIMI DIGITI MUSCLES. ADDUCTOR POLLICIS MUSCLE (*see note* [2] *to p.* 324). THIRD AND FOURTH DORSAL INTEROSSEOUS AND SECOND AND THIRD PALMAR INTEROSSEOUS MUSCLES. PRONATOR QUADRATUS MUSCLE. VAGINAL LIGAMENTS (*see note* [3] *above*). RIGHT HAND.

Musculi manus—Muscles of the hand.

---

[1] See note [1] to p. 326.

[2] See note [2] to p. 324.

[3] The author does not enumerate all the component parts of the anterior wall of the digital sheaths of the flexor tendons. These are: (1) *Superior vaginal band* (called by Toldt *fibræ annulares*), strong transverse fibres crossing the tendon at the level of the upper half of the proximal phalanx (to the rough margins of the anterior surface of which bone the fibres are attached); (2) *superior crucial band* (called by Toldt *fibræ cruciatæ*), X-shaped bands at the level of the distal end of the proximal phalanx; (3) *middle vaginal band*, a slight transverse slip at the level of the proximal interphalangeal articulation (called by Toldt *ligamentum vaginale*); (4) *oblique band*, passing downwards and inwards across the proximal extremity of the medial phalanx; (5) *inferior vaginal band*, across the middle of the medial phalanx; (6) *inferior crucial band*, in front of the distal interphalangeal articulation.—TR.

[4] Or *flexor perforatus* muscle.

[5] Or *flexor perforans* muscle.

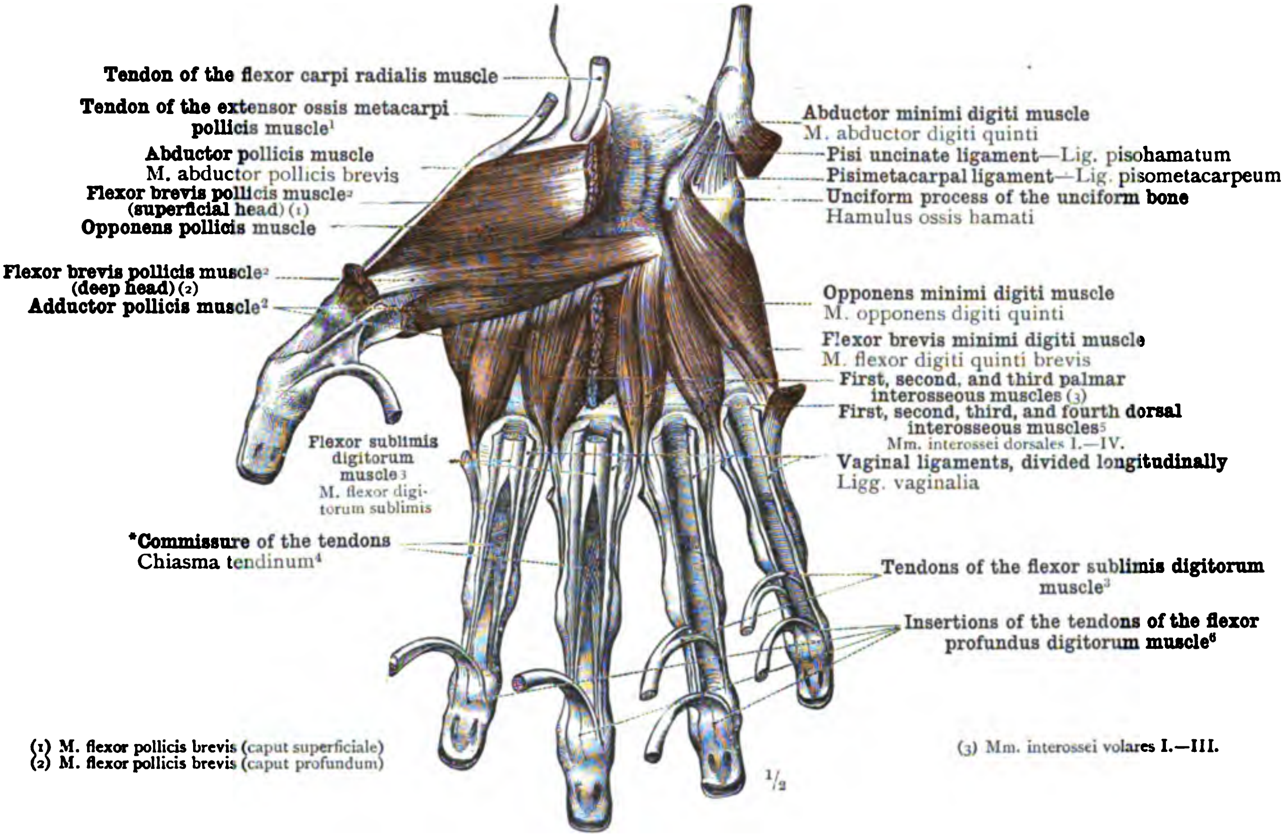

Tendon of the flexor carpi radialis muscle
Tendon of the extensor ossis metacarpi pollicis muscle[1]
Abductor pollicis muscle
M. abductor pollicis brevis
Flexor brevis pollicis muscle[2] (superficial head) (1)
Opponens pollicis muscle
Flexor brevis pollicis muscle[2] (deep head) (2)
Adductor pollicis muscle[2]
Flexor sublimis digitorum muscle[3]
M. flexor digitorum sublimis
*Commissure of the tendons
Chiasma tendinum[4]
Abductor minimi digiti muscle
M. abductor digiti quinti
Pisi uncinate ligament—Lig. pisohamatum
Pisimetacarpal ligament—Lig. pisometacarpeum
Unciform process of the unciform bone
Hamulus ossis hamati
Opponens minimi digiti muscle
M. opponens digiti quinti
Flexor brevis minimi digiti muscle
M. flexor digiti quinti brevis
First, second, and third palmar interosseous muscles (3)
First, second, third, and fourth dorsal interosseous muscles[5]
Mm. interossei dorsales I.—IV.
Vaginal ligaments, divided longitudinally
Ligg. vaginalia
Tendons of the flexor sublimis digitorum muscle[3]
Insertions of the tendons of the flexor profundus digitorum muscle[6]
(1) M. flexor pollicis brevis (caput superficiale)
(2) M. flexor pollicis brevis (caput profundum)
(3) Mm. interossei volares I.—III.
1/2

FIG. 585.—THE DEEP LAYER OF MUSCLES OF THE THENAR AND HYPOTHENAR EMINENCES, DISPLAYED BY THE REMOVAL OF THE ABDUCTOR POLLICIS AND ABDUCTOR MINIMI DIGITI MUSCLES, AND ALSO OF THE SUPERFICIAL HEAD OF THE FLEXOR BREVIS POLLICIS MUSCLE: OPPONENS POLLICIS MUSCLE; DEEP HEAD OF THE FLEXOR BREVIS POLLICIS MUSCLE (*see note [2] to p.* 324); OPPONENS MINIMI DIGITI; FLEXOR BREVIS MINIMI DIGITI.

By the removal of that portion of the adductor pollicis muscle which arises from the third metacarpal bone, the portion of this muscle arising from the carpal ligaments, and the dorsal and palmar interosseous muscles, are exposed to view. The vaginal ligaments of the flexor tendons have been opened, and in the index and middle fingers the commissure of the tendons (*see note [4] above*) of the superficial flexor is shown.

Musculi manus—Muscles of the hand.

---

[1] See note [1] to p. 326.

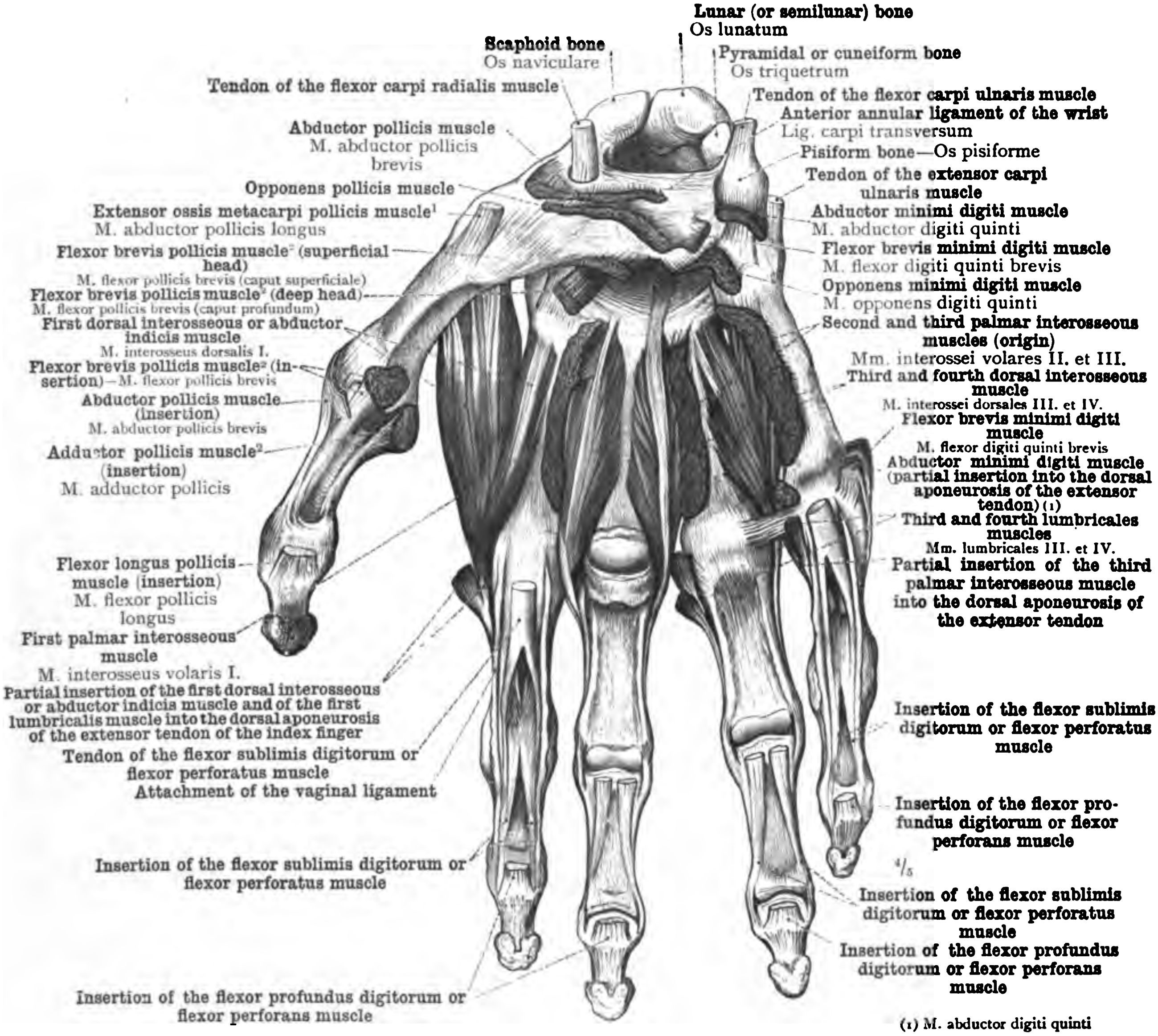
[2] See note [2] to p. 324.

[3] Or *flexor perforatus* muscle.

[4] *Chiasma Tendinum.*—This term is not commonly employed by English anatomists. It is applied by the author to the commissure by which the two divisions of the tendon of the superficial flexor, after splitting for the passage of the tendon of the deep flexor, are reunited for a short space; below this commissure the tendon of the superficial flexor divides once more into two parts, which pass to the lateral ridges of the medial phalanx.—TR.

[5] The first dorsal interosseous muscle is also called the *abductor* indicis muscle.—TR.

[6] Or *flexor perforans* muscle.


Lunar (or semilunar) bone
Os lunatum
Scaphoid bone
Os naviculare
Pyramidal or cuneiform bone
Os triquetrum
Tendon of the flexor carpi radialis muscle
Tendon of the flexor carpi ulnaris muscle
Anterior annular ligament of the wrist
Lig. carpi transversum
Abductor pollicis muscle
M. abductor pollicis brevis
Pisiform bone—Os pisiforme
Opponens pollicis muscle
Tendon of the extensor carpi ulnaris muscle
Extensor ossis metacarpi pollicis muscle¹
M. abductor pollicis longus
Abductor minimi digiti muscle
M. abductor digiti quinti
Flexor brevis pollicis muscle² (superficial head)
M. flexor pollicis brevis (caput superficiale)
Flexor brevis minimi digiti muscle
M. flexor digiti quinti brevis
Flexor brevis pollicis muscle² (deep head)
M. flexor pollicis brevis (caput profundum)
Opponens minimi digiti muscle
M. opponens digiti quinti
First dorsal interosseous or abductor indicis muscle
M. interosseus dorsalis I.
Second and third palmar interosseous muscles (origin)
Mm. interossei volares II. et III.
Flexor brevis pollicis muscle² (insertion)—M. flexor pollicis brevis
Third and fourth dorsal interosseous muscle
M. interossei dorsales III. et IV.
Abductor pollicis muscle (insertion)
M. abductor pollicis brevis
Flexor brevis minimi digiti muscle
M. flexor digiti quinti brevis
Adductor pollicis muscle² (insertion)
M. adductor pollicis
Abductor minimi digiti muscle (partial insertion into the dorsal aponeurosis of the extensor tendon) (1)
Third and fourth lumbricales muscles
Mm. lumbricales III. et IV.
Flexor longus pollicis muscle (insertion)
M. flexor pollicis longus
Partial insertion of the third palmar interosseous muscle into the dorsal aponeurosis of the extensor tendon
First palmar interosseous muscle
M. interosseus volaris I.
Partial insertion of the first dorsal interosseous or abductor indicis muscle and of the first lumbricalis muscle into the dorsal aponeurosis of the extensor tendon of the index finger
Insertion of the flexor sublimis digitorum or flexor perforatus muscle
Tendon of the flexor sublimis digitorum or flexor perforatus muscle
Attachment of the vaginal ligament
Insertion of the flexor profundus digitorum or flexor perforans muscle
4/5
Insertion of the flexor sublimis digitorum or flexor perforatus muscle
Insertion of the flexor sublimis digitorum or flexor perforatus muscle
Insertion of the flexor profundus digitorum or flexor perforans muscle
Insertion of the flexor profundus digitorum or flexor perforans muscle
(1) M. abductor digiti quinti

¹ See note ¹ to p. 326. ² See note ² to p. 324.

FIG. 586.—ATTACHMENT OF MUSCLES TO THE PALMAR SURFACE OF THE HAND.

Musculi manus—Muscles of the hand.

MUSCULI EXTREMITATIS INFERIORIS

THE MUSCLES OF THE LOWER EXTREMITY

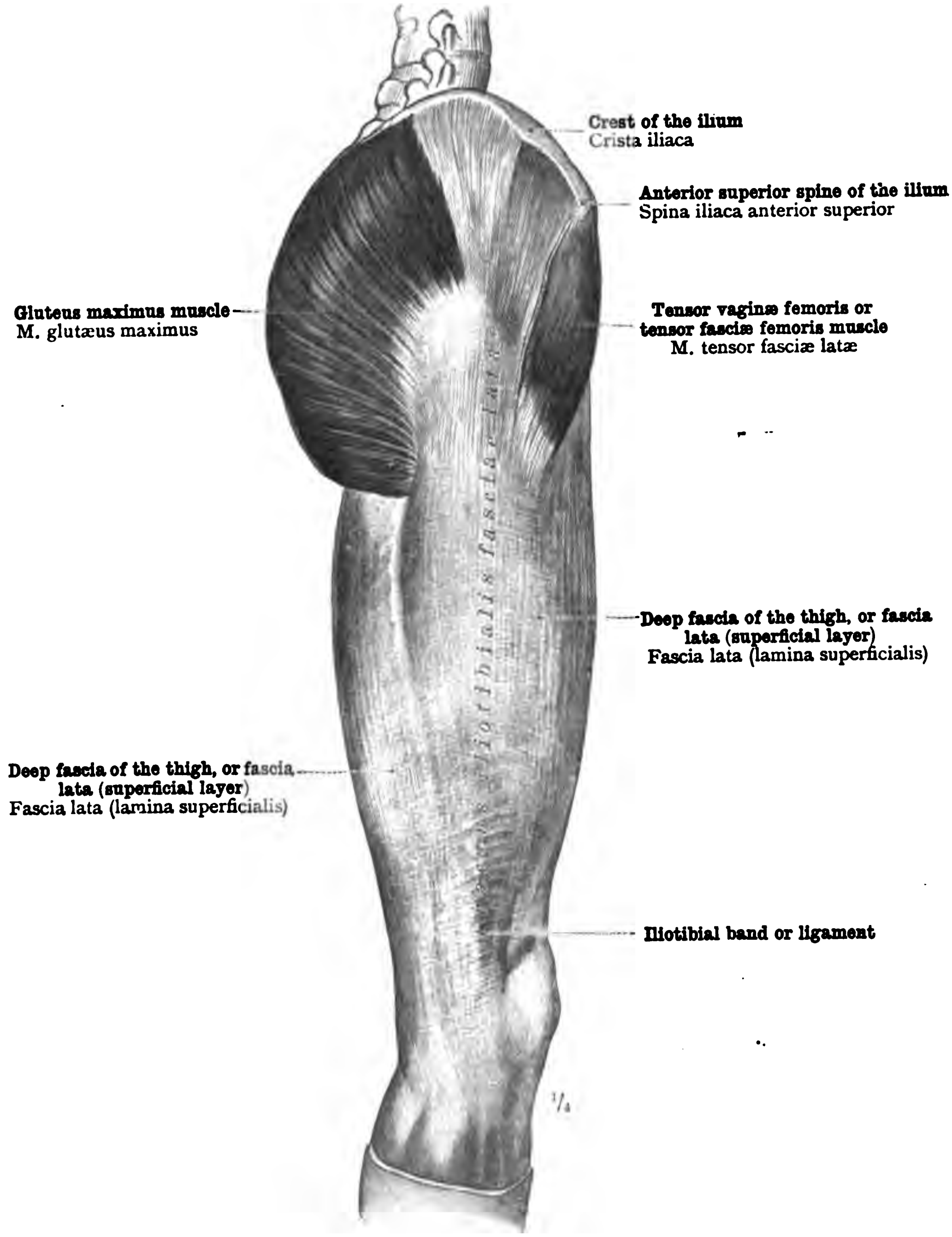

Crest of the ilium
Crista iliaca
Anterior superior spine of the ilium
Spina iliaca anterior superior
Gluteus maximus muscle
M. glutæus maximus
Tensor vaginæ femoris or tensor fasciæ femoris muscle
M. tensor fasciæ latæ
Deep fascia of the thigh, or fascia lata (superficial layer)
Fascia lata (lamina superficialis)
Deep fascia of the thigh, or fascia lata (superficial layer)
Fascia lata (lamina superficialis)
Iliotibial band or ligament
Tractus iliotibialis fasciae latae
¹/₄

Fig. 587.—Deep Fascia of the Thigh, or Fascia Lata, seen from the Outer Side, with the Thickened Portion of this Fascia, known as the Iliotibial Band or Ligament; Insertion of the Tensor Vaginæ Femoris (Tensor Fasciæ Femoris, Tensor Fasciæ Latæ) Muscle and Partial Insertion of the Gluteus Maximus Muscle into the Iliotibial Band or Ligament. Right Thigh.

Musculi coxæ et femoris—Muscles of the hip and thigh.

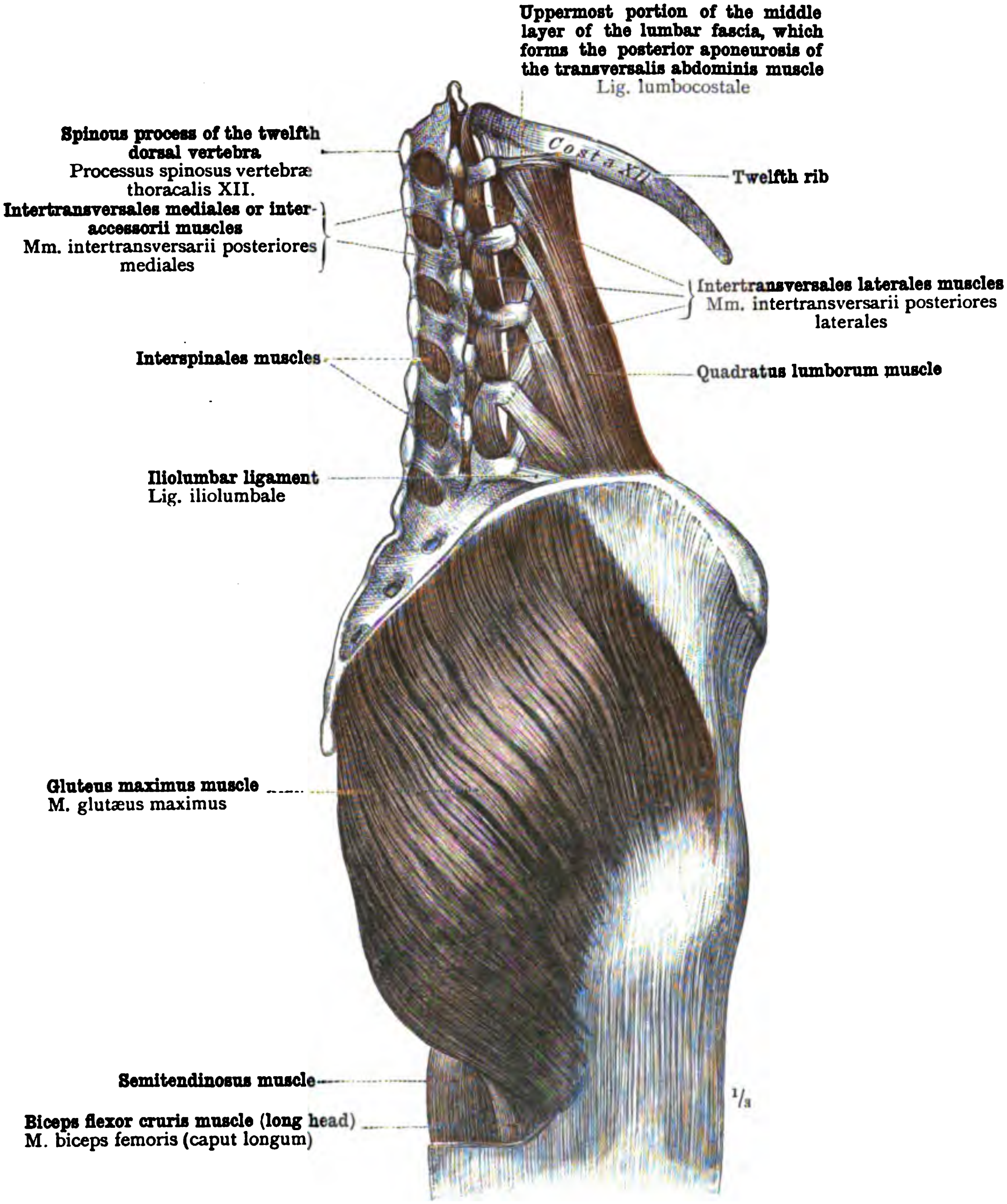

Uppermost portion of the middle layer of the lumbar fascia, which forms the posterior aponeurosis of the transversalis abdominis muscle
Lig. lumbocostale
Spinous process of the twelfth dorsal vertebra
Processus spinosus vertebræ thoracalis XII.
Costa XII
Twelfth rib
Intertransversales mediales or inter-accessorii muscles
Mm. intertransversarii posteriores mediales
Intertransversales laterales muscles
Mm. intertransversarii posteriores laterales
Interspinales muscles
Quadratus lumborum muscle
Iliolumbar ligament
Lig. iliolumbale
Gluteus maximus muscle
M. glutæus maximus
Semitendinosus muscle
1/3
Biceps flexor cruris muscle (long head)
M. biceps femoris (caput longum)

FIG. 588.—GLUTEUS MAXIMUS MUSCLE, SEEN OBLIQUELY FROM BEHIND AND WITHOUT, CONSTITUTING THE SUPERFICIAL LAYER OF THE EXTERNAL MUSCLES OF THE HIP. QUADRATUS LUMBORUM MUSCLE; INTERSPINALES, INTERTRANSVERSALES LATERALES, AND INTERTRANSVERSALES MEDIALES OR INTERACCESSORII MUSCLES OF THE LUMBAR REGION; SEEN FROM BEHIND. RIGHT SIDE.

Musculi coxæ—Muscles of the hip.

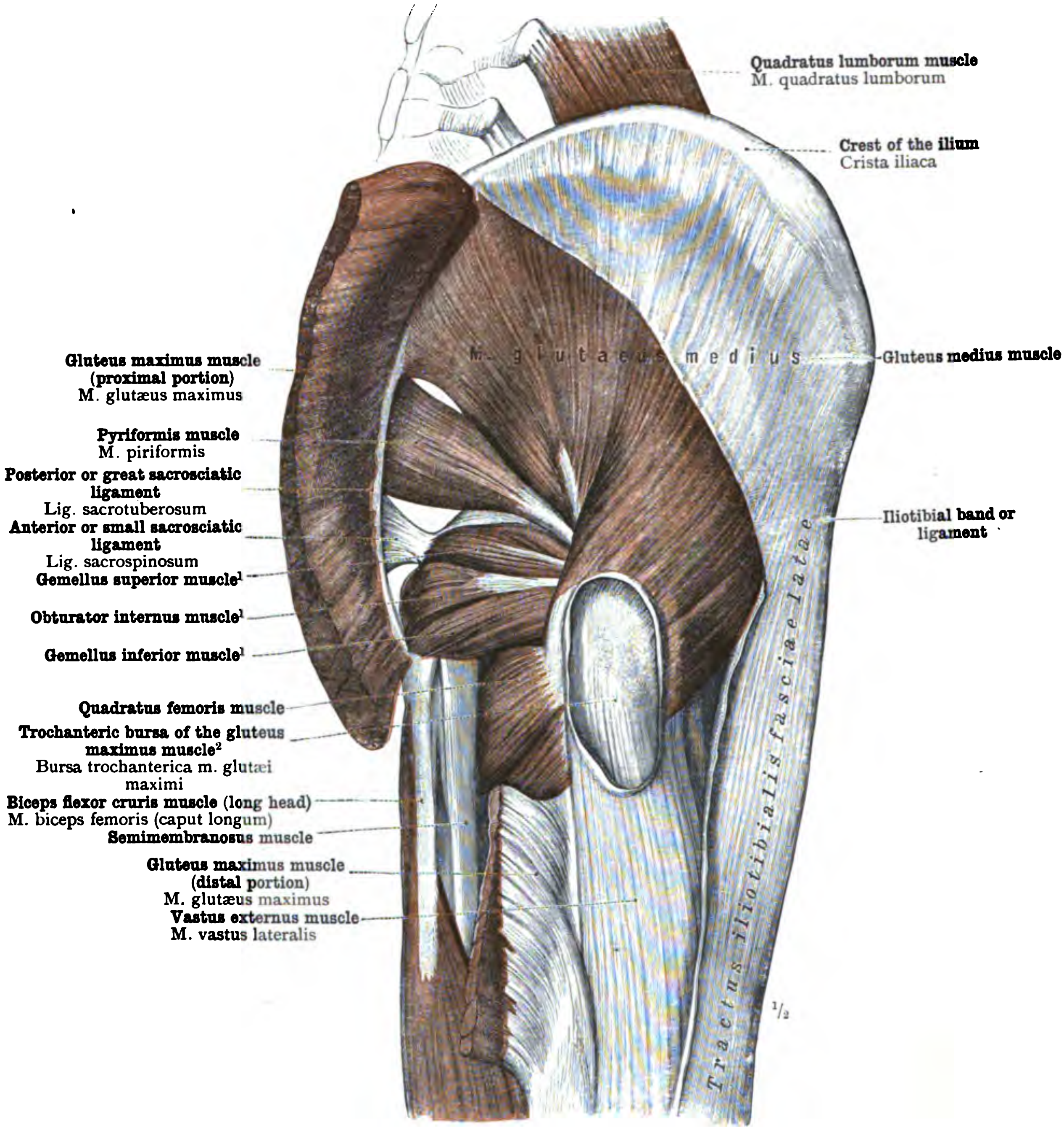

Quadratus lumborum muscle
M. quadratus lumborum
Crest of the ilium
Crista iliaca
M. glutaeus medius
Gluteus medius muscle
Gluteus maximus muscle (proximal portion)
M. glutæus maximus
Pyriformis muscle
M. piriformis
Posterior or great sacrosciatic ligament
Lig. sacrotuberosum
Anterior or small sacrosciatic ligament
Lig. sacrospinosum
Gemellus superior muscle[1]
Obturator internus muscle[1]
Gemellus inferior muscle[1]
Iliotibial band or ligament
Tractus iliotibialis fasciae latae
Quadratus femoris muscle
Trochanteric bursa of the gluteus maximus muscle[2]
Bursa trochanterica m. glutæi maximi
Biceps flexor cruris muscle (long head)
M. biceps femoris (caput longum)
Semimembranosus muscle
Gluteus maximus muscle (distal portion)
M. glutæus maximus
Vastus externus muscle
M. vastus lateralis
1/2

FIG. 589.—SECOND LAYER OF THE EXTERNAL MUSCLES OF THE HIP, DISPLAYED BY THE DIVISION OF THE GLUTEUS MAXIMUS MUSCLE AND THE POSTERIOR PORTION OF THE FASCIA LATA: GLUTEUS MEDIUS MUSCLE; PYRIFORMIS MUSCLE; OBTURATOR INTERNUS AND GEMELLUS SUPERIOR AND INFERIOR MUSCLES; QUADRATUS FEMORIS MUSCLE. ORIGIN AND FEMORAL INSERTION OF THE GLUTEUS MAXIMUS MUSCLE. TROCHANTERIC BURSA OF THE GLUTEUS MAXIMUS MUSCLE. RIGHT HIP, SEEN FROM THE OUTER SIDE.

Musculi coxæ—Muscles of the hip.

---

[1] The gemelli muscles may be regarded as portions of the obturator internus muscle arising outside the pelvis, and for this reason Macalister has given to the three muscles the name of *triceps rotator femoris muscle*, but the term is rarely used.—TR.

[2] The *trochanteric bursa of the gluteus maximus muscle* is situate, as its name implies, between the fascial insertion of the gluteus maximus muscle and the great trochanter of the femur. In most cases it is a large compound or multilocular bursa, but is occasionally represented by several distinct smaller bursæ.—TR.

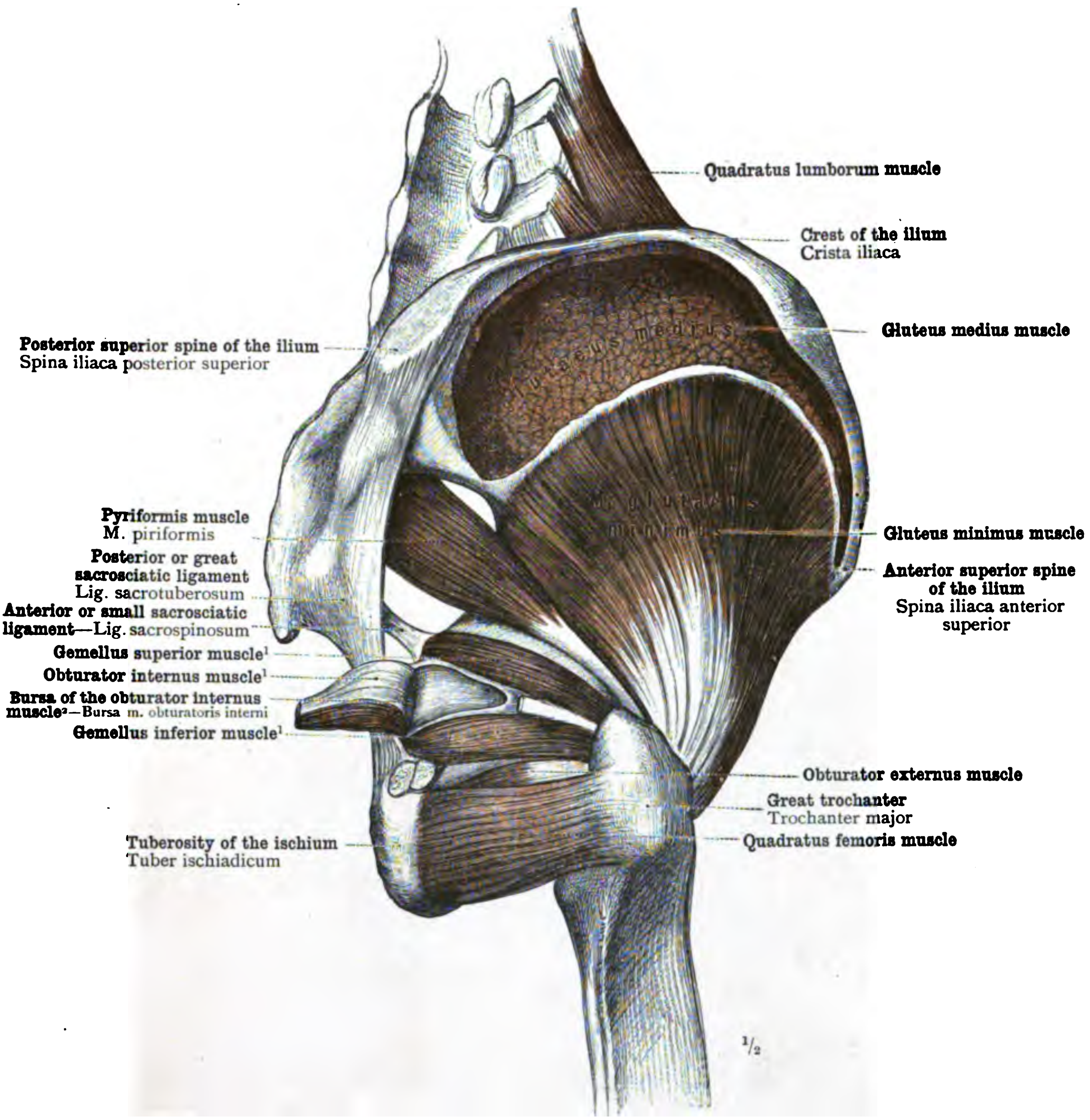

Quadratus lumborum muscle
Crest of the ilium
Crista iliaca
Gluteus medius muscle
Posterior superior spine of the ilium
Spina iliaca posterior superior
Pyriformis muscle
M. piriformis
Posterior or great sacrosciatic ligament
Lig. sacrotuberosum
Anterior or small sacrosciatic ligament—Lig. sacrospinosum
Gemellus superior muscle¹
Obturator internus muscle¹
Bursa of the obturator internus muscle²—Bursa m. obturatoris interni
Gemellus inferior muscle¹
Gluteus minimus muscle
Anterior superior spine of the ilium
Spina iliaca anterior superior
Obturator externus muscle
Great trochanter
Trochanter major
Quadratus femoris muscle
Tuberosity of the ischium
Tuber ischiadicum
1/2

FIG. 590.—DEEP EXTERNAL MUSCLES OF THE RIGHT HIP, DISPLAYED BY THE REMOVAL OF THE GLUTEUS MAXIMUS AND GLUTEUS MEDIUS MUSCLES: GLUTEUS MINIMUS MUSCLE; PYRIFORMIS MUSCLE. SEEN OBLIQUELY FROM THE RIGHT SIDE AND BEHIND.

The tendon of the obturator internus muscle has been divided, and the inner half has been turned inwards over the posterior or great sacrosciatic ligament, in order to display the bursa of the obturator internus muscle. The quadratus femoris muscle has been drawn downwards a little, and slightly separated from the gemellus inferior muscle, in order to bring into view between them a portion of the obturator externus muscle.

Musculi coxæ—Muscles of the hip.

---

[1] See note [1] to p. 340.

[2] The *bursa of the obturator internus muscle* is situate between the tendon of the obturator internus muscle and the cartilage-covered trochlear surface or groove of the ischium (*i.e.*, the hollowed portion of the bone between the spine and the tuberosity); a second bursa, long and narrow, lies between the tendon of the muscle and the capsule of the hip-joint: often, however, as in Fig. 590, these two bursæ combine to form a single structure.—Tr.

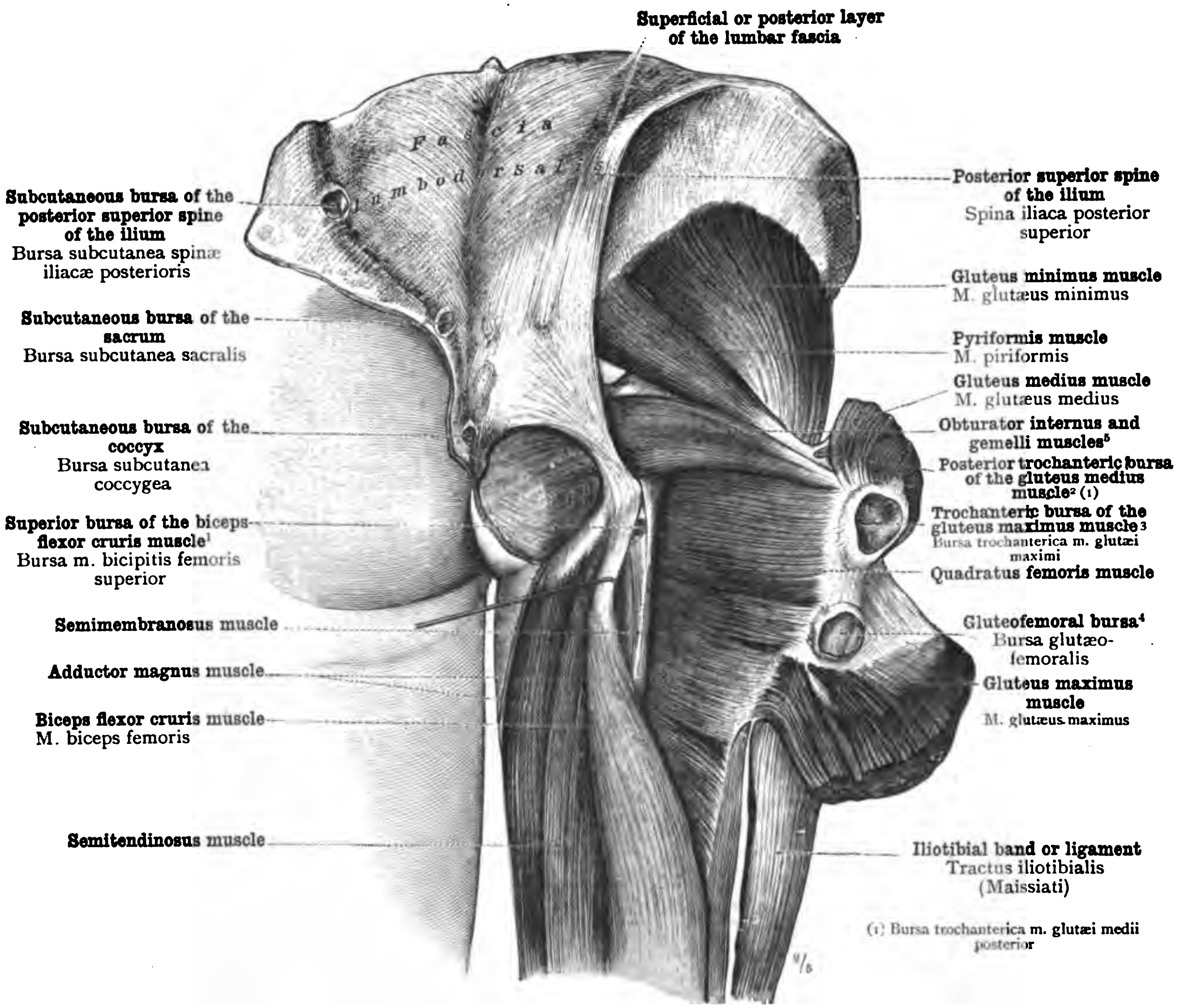

Superficial or posterior layer of the lumbar fascia
Fascia lumbodorsalis
Subcutaneous bursa of the posterior superior spine of the ilium
Bursa subcutanea spinæ iliacæ posterioris
Subcutaneous bursa of the sacrum
Bursa subcutanea sacralis
Subcutaneous bursa of the coccyx
Bursa subcutanea coccygea
Superior bursa of the biceps-flexor cruris muscle[1]
Bursa m. bicipitis femoris superior
Semimembranosus muscle
Adductor magnus muscle
Biceps flexor cruris muscle
M. biceps femoris
Semitendinosus muscle
Posterior superior spine of the ilium
Spina iliaca posterior superior
Gluteus minimus muscle
M. glutæus minimus
Pyriformis muscle
M. piriformis
Gluteus medius muscle
M. glutæus medius
Obturator internus and gemelli muscles[5]
Posterior trochanteric bursa of the gluteus medius muscle[2] (1)
Trochanteric bursa of the gluteus maximus muscle[3]
Bursa trochanterica m. glutæi maximi
Quadratus femoris muscle
Gluteofemoral bursa[4]
Bursa glutæo-femoralis
Gluteus maximus muscle
M. glutæus maximus
Iliotibial band or ligament
Tractus iliotibialis (Maissiati)
(1) Bursa trochanterica m. glutæi medii posterior
⁴/₅

FIG. 591.—DEEP EXTERNAL MUSCLES OF THE RIGHT HIP SEEN FROM BEHIND, SHOWING THEIR RELATION TO THE POSTERIOR FEMORAL OR HAMSTRING MUSCLES AND TO THE ADDUCTOR MAGNUS MUSCLE. INSERTION OF THE GLUTEUS MAXIMUS INTO THE GLUTEAL RIDGE OF THE FEMUR AND INTO THE FASCIA LATA. BURSÆ OF THE SACRAL AND GLUTEAL REGIONS.

The gemelli muscles have been left undisturbed in their close proximity to the obturator internus muscle.

Musculi coxæ—Muscles of the hip.

---

[1] The *superior bursa of the biceps flexor cruris muscle* is situate between the tendon of the long head of that muscle and the origin of the semimembranosus muscle.—TR.

[2] The *posterior trochanteric bursa of the gluteus medius muscle* is a small bursa situate internal to the tendon of that muscle, between it and the insertion of the tendon of the pyriformis muscle.—TR.

[3] See note [2] to p. 340.

[4] The *gluteofemoral bursa* is situate between the fascial insertion of the gluteus maximus muscle and the upper part of the vastus externus muscle.—TR.

[5] See note [1] to p. 340.

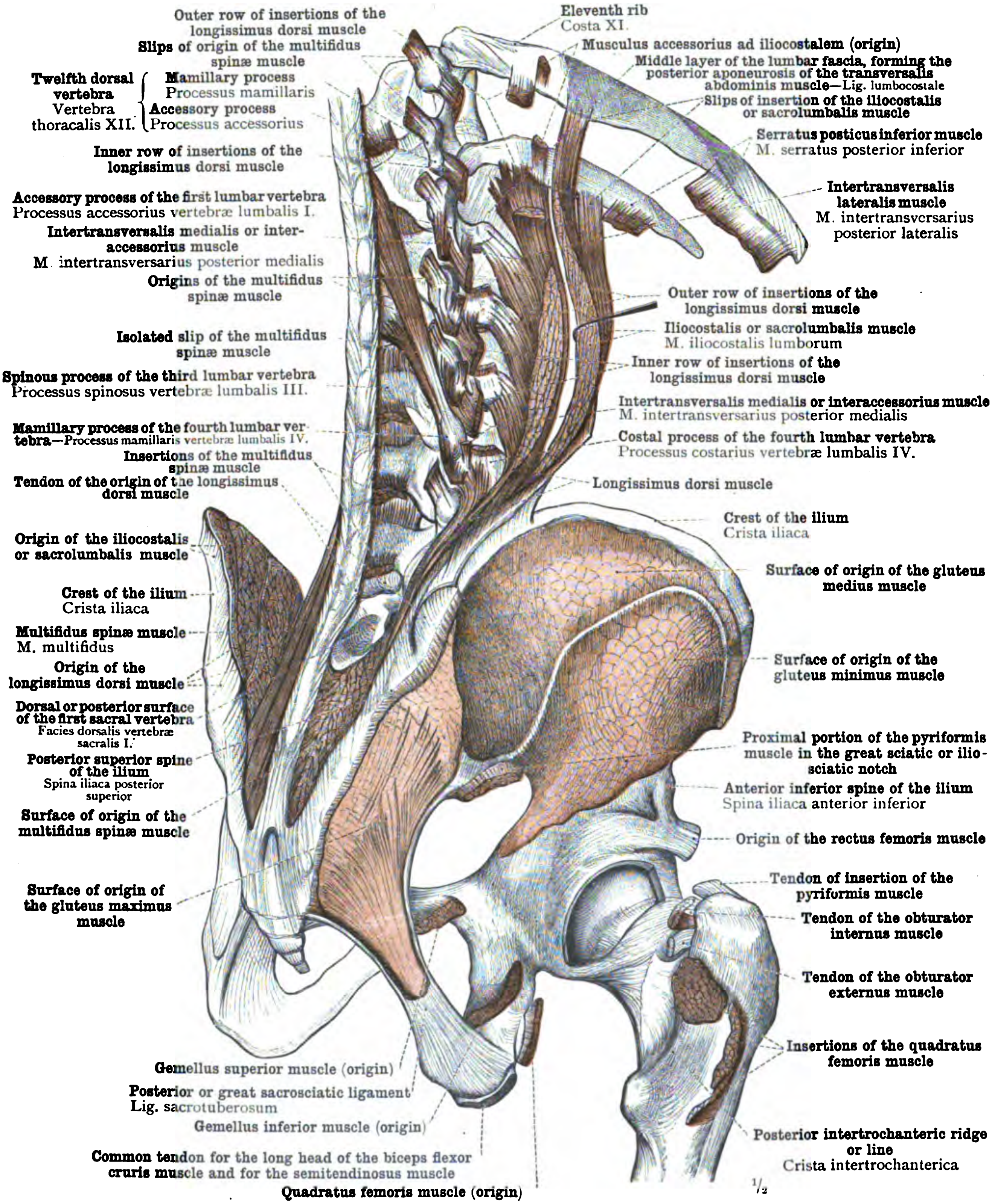
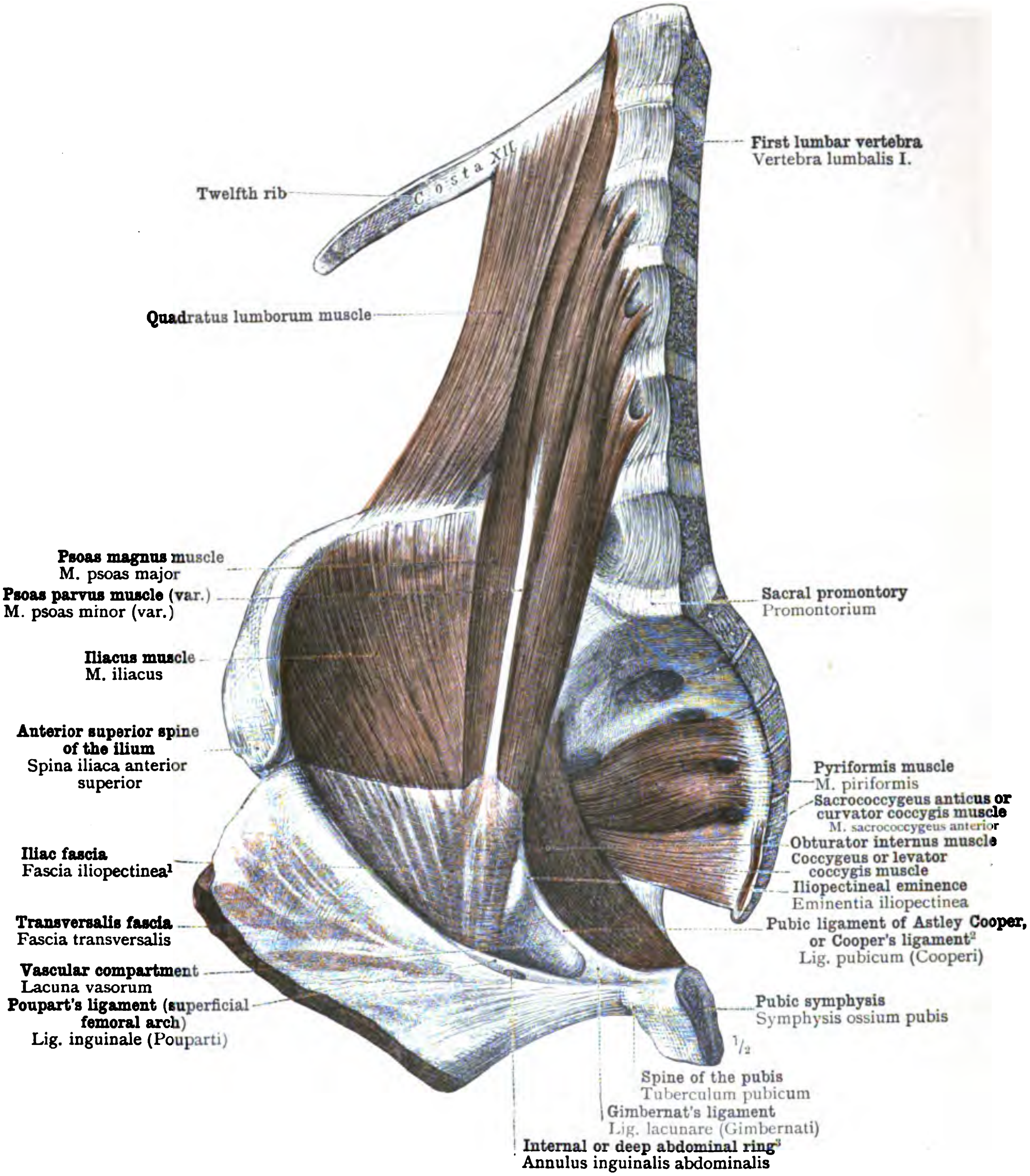

Outer row of insertions of the longissimus dorsi muscle
Slips of origin of the multifidus spinæ muscle
Twelfth dorsal vertebra Vertebra thoracalis XII.
Mamillary process Processus mamillaris
Accessory process Processus accessorius
Inner row of insertions of the longissimus dorsi muscle
Accessory process of the first lumbar vertebra Processus accessorius vertebræ lumbalis I.
Intertransversalis medialis or inter-accessorius muscle M. intertransversarius posterior medialis
Origins of the multifidus spinæ muscle
Isolated slip of the multifidus spinæ muscle
Spinous process of the third lumbar vertebra Processus spinosus vertebræ lumbalis III.
Mamillary process of the fourth lumbar vertebra—Processus mamillaris vertebræ lumbalis IV.
Insertions of the multifidus spinæ muscle
Tendon of the origin of the longissimus dorsi muscle
Origin of the iliocostalis or sacrolumbalis muscle
Crest of the ilium Crista iliaca
Multifidus spinæ muscle M. multifidus
Origin of the longissimus dorsi muscle
Dorsal or posterior surface of the first sacral vertebra Facies dorsalis vertebræ sacralis I.
Posterior superior spine of the ilium Spina iliaca posterior superior
Surface of origin of the multifidus spinæ muscle
Surface of origin of the gluteus maximus muscle
Eleventh rib Costa XI.
Musculus accessorius ad iliocostalem (origin)
Middle layer of the lumbar fascia, forming the posterior aponeurosis of the transversalis abdominis muscle—Lig. lumbocostale
Slips of insertion of the iliocostalis or sacrolumbalis muscle
Serratus posticus inferior muscle M. serratus posterior inferior
Intertransversalis lateralis muscle M. intertransversarius posterior lateralis
Outer row of insertions of the longissimus dorsi muscle
Iliocostalis or sacrolumbalis muscle M. iliocostalis lumborum
Inner row of insertions of the longissimus dorsi muscle
Intertransversalis medialis or interaccessorius muscle M. intertransversarius posterior medialis
Costal process of the fourth lumbar vertebra Processus costarius vertebræ lumbalis IV.
Longissimus dorsi muscle
Crest of the ilium Crista iliaca
Surface of origin of the gluteus medius muscle
Surface of origin of the gluteus minimus muscle
Proximal portion of the pyriformis muscle in the great sciatic or ilio-sciatic notch
Anterior inferior spine of the ilium Spina iliaca anterior inferior
Origin of the rectus femoris muscle
Tendon of insertion of the pyriformis muscle
Tendon of the obturator internus muscle
Tendon of the obturator externus muscle
Insertions of the quadratus femoris muscle
Posterior intertrochanteric ridge or line Crista intertrochanterica
Gemellus superior muscle (origin)
Posterior or great sacrosciatic ligament Lig. sacrotuberosum
Gemellus inferior muscle (origin)
Common tendon for the long head of the biceps flexor cruris muscle and for the semitendinosus muscle
Quadratus femoris muscle (origin)
1/2

FIG. 592.—ATTACHMENT OF MUSCLES TO THE POSTERIOR SURFACE OF THE LUMBAR VERTEBRÆ AND OF THE HIP-BONE.

Musculi coxæ—Muscles of the hip.


Costa XII
Twelfth rib
First lumbar vertebra
Vertebra lumbalis I.
Quadratus lumborum muscle
Psoas magnus muscle
M. psoas major
Psoas parvus muscle (var.)
M. psoas minor (var.)
Sacral promontory
Promontorium
Iliacus muscle
M. iliacus
Anterior superior spine of the ilium
Spina iliaca anterior superior
Pyriformis muscle
M. piriformis
Sacrococcygeus anticus or curvator coccygis muscle
M. sacrococcygeus anterior
Obturator internus muscle
Coccygeus or levator coccygis muscle
Iliopectineal eminence
Eminentia iliopectinea
Iliac fascia
Fascia iliopectinea¹
Transversalis fascia
Fascia transversalis
Pubic ligament of Astley Cooper, or Cooper's ligament²
Lig. pubicum (Cooperi)
Vascular compartment
Lacuna vasorum
Poupart's ligament (superficial femoral arch)
Lig. inguinale (Pouparti)
Pubic symphysis
Symphysis ossium pubis
1/2
Spine of the pubis
Tuberculum pubicum
Gimbernat's ligament
Lig. lacunare (Gimbernati)
Internal or deep abdominal ring³
Annulus inguinalis abdominalis

[1] See note [1] to p. 390.

[2] See note [2] to p. 390.

[3] Or *internal inguinal aperture.*

FIG. 593.—INTERNAL MUSCLES OF THE REGION OF THE HIP, SEEN SOMEWHAT OBLIQUELY FROM BEFORE: ILIOPSOAS MUSCLE, CONSISTING OF TWO PARTS—THE ILIACUS MUSCLE AND THE PSOAS MAGNUS MUSCLE; PSOAS PARVUS MUSCLE, THE TENDON OF WHICH BECOMES INCORPORATED WITH THE ILIAC FASCIA. OBTURATOR INTERNUS MUSCLE. PYRIFORMIS AND QUADRATUS LUMBORUM MUSCLES. LACUNA VASORUM, OR VASCULAR COMPARTMENT, OF THE SPACE BETWEEN POUPART'S LIGAMENT (SUPERFICIAL FEMORAL ARCH) AND THE CONCAVE ILIOPUBIC MARGIN OF THE HIP-BONE. RIGHT SIDE.

Musculi coxæ—Muscles of the hip.

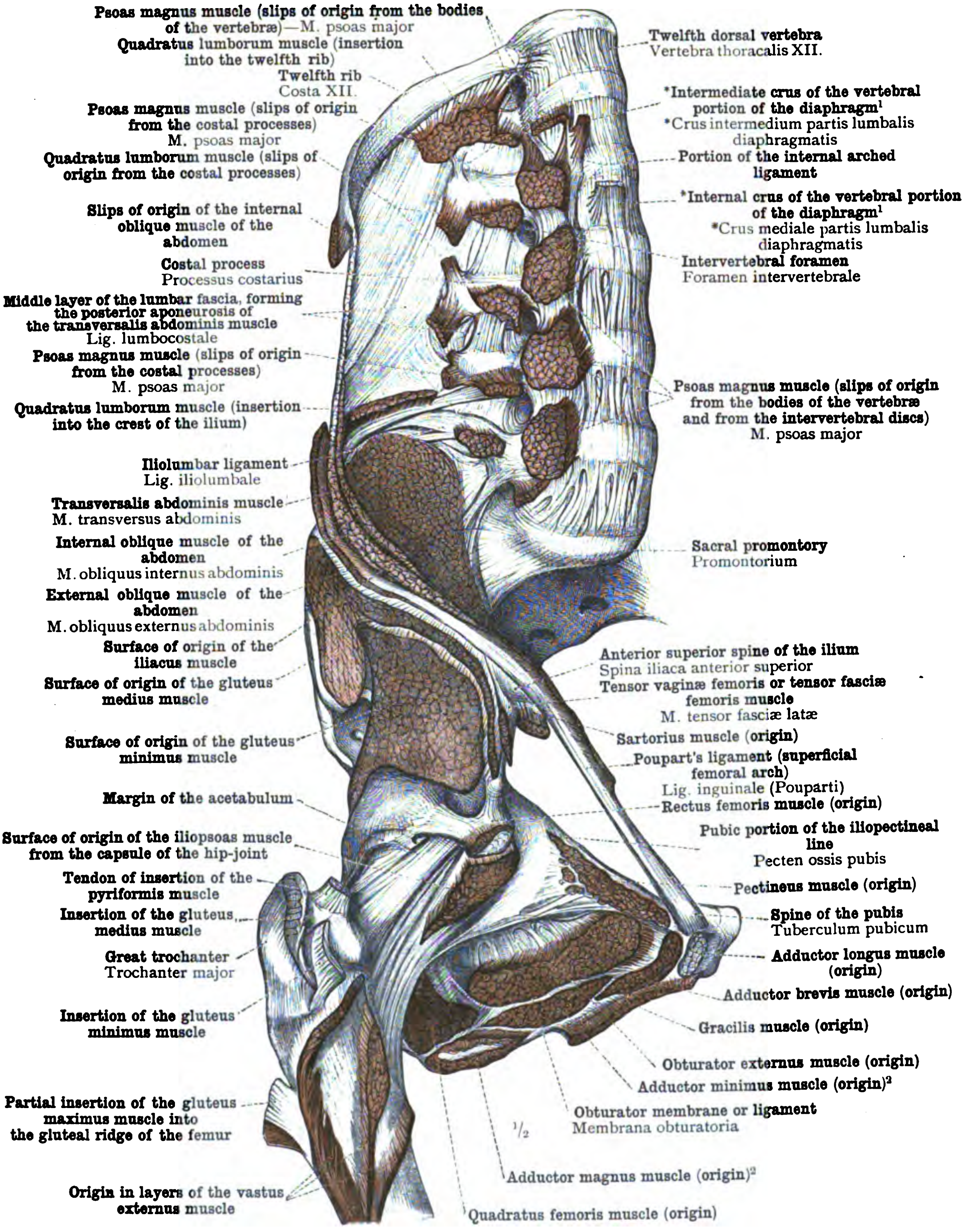

Psoas magnus muscle (slips of origin from the bodies of the vertebræ)—M. psoas major
Quadratus lumborum muscle (insertion into the twelfth rib)
Twelfth rib
Costa XII.
Psoas magnus muscle (slips of origin from the costal processes)
M. psoas major
Quadratus lumborum muscle (slips of origin from the costal processes)
Slips of origin of the internal oblique muscle of the abdomen
Costal process
Processus costarius
Middle layer of the lumbar fascia, forming the posterior aponeurosis of the transversalis abdominis muscle
Lig. lumbocostale
Psoas magnus muscle (slips of origin from the costal processes)
M. psoas major
Quadratus lumborum muscle (insertion into the crest of the ilium)
Iliolumbar ligament
Lig. iliolumbale
Transversalis abdominis muscle
M. transversus abdominis
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
External oblique muscle of the abdomen
M. obliquus externus abdominis
Surface of origin of the iliacus muscle
Surface of origin of the gluteus medius muscle
Surface of origin of the gluteus minimus muscle
Margin of the acetabulum
Surface of origin of the iliopsoas muscle from the capsule of the hip-joint
Tendon of insertion of the pyriformis muscle
Insertion of the gluteus medius muscle
Great trochanter
Trochanter major
Insertion of the gluteus minimus muscle
Partial insertion of the gluteus maximus muscle into the gluteal ridge of the femur
Origin in layers of the vastus externus muscle
Twelfth dorsal vertebra
Vertebra thoracalis XII.
*Intermediate crus of the vertebral portion of the diaphragm[1]
*Crus intermedium partis lumbalis diaphragmatis
Portion of the internal arched ligament
*Internal crus of the vertebral portion of the diaphragm[1]
*Crus mediale partis lumbalis diaphragmatis
Intervertebral foramen
Foramen intervertebrale
Psoas magnus muscle (slips of origin from the bodies of the vertebræ and from the intervertebral discs)
M. psoas major
Sacral promontory
Promontorium
Anterior superior spine of the ilium
Spina iliaca anterior superior
Tensor vaginæ femoris or tensor fasciæ femoris muscle
M. tensor fasciæ latæ
Sartorius muscle (origin)
Poupart's ligament (superficial femoral arch)
Lig. inguinale (Pouparti)
Rectus femoris muscle (origin)
Pubic portion of the iliopectineal line
Pecten ossis pubis
Pectineus muscle (origin)
Spine of the pubis
Tuberculum pubicum
Adductor longus muscle (origin)
Adductor brevis muscle (origin)
Gracilis muscle (origin)
Obturator externus muscle (origin)
Adductor minimus muscle (origin)[2]
Obturator membrane or ligament
Membrana obturatoria
1/2
Adductor magnus muscle (origin)[2]
Quadratus femoris muscle (origin)

FIG. 594.—ATTACHMENT OF MUSCLES TO THE ANTERIOR SURFACE OF THE LUMBAR VERTEBRÆ AND OF THE HIP-BONE

Musculi coxæ—Muscles of the hip.

---

[1] See note [1] to p. 286.

[2] *Adductor Minimus Muscle.*—This is by English anatomists usually regarded as the ***anterior and superior*** portion of the adductor magnus muscle, arising from the body of the pubis and the ischiopubic rami, and inserted into the femur from the lower extremity of the insertion of the quadratus femoris muscle to the upper end of the linea aspera, and sometimes for a short distance along that line. The ***adductor magnus muscle*** of Continental writers, regarded by English anatomists as the ***posterior and inferior*** portion of the adductor magnus muscle, is much larger, arising from the inferior ramus of the ischium internal to the foregoing, and from the tuberosity of the ischium by a strong tendon which descends on the hinder surface of the muscle for a third of its length; this portion of the muscle is inserted into the whole length of the linea aspera below the preceding portion and into the upper part of the internal supracondylar line, and by a tendon which passes below the opening for the femoral vessels to the adductor tubercle on the internal condyle of the femur.—TR.

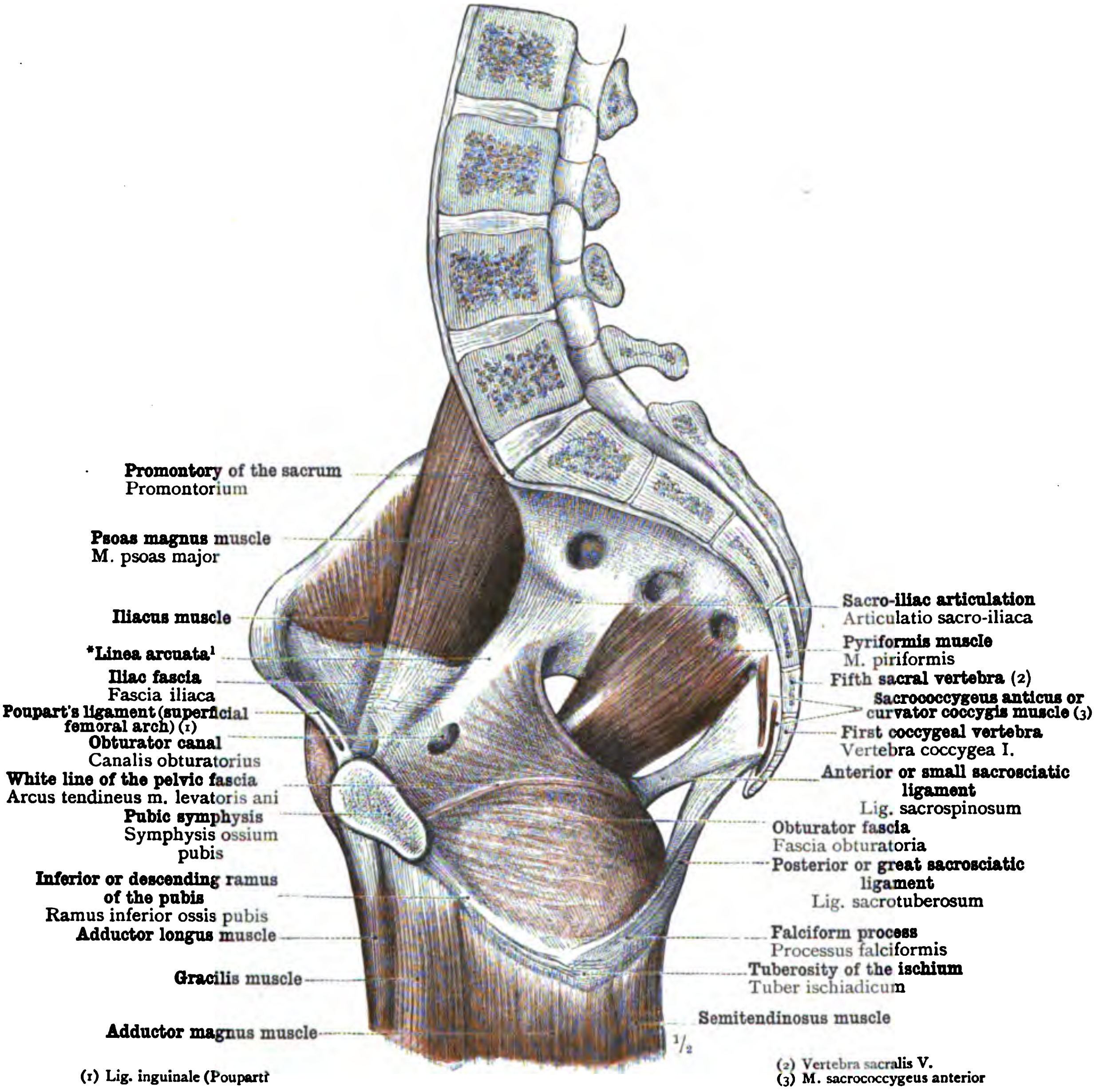


FIG. 595.—INTERNAL MUSCLES OF THE REGION OF THE HIP, SEEN FROM THE INNER SIDE, WITH THE OBTURATOR FASCIA AND A PORTION OF THE ILIAC FASCIA: PYRIFORMIS MUSCLE; THE TWO PARTS OF THE ILIOPSOAS MUSCLE, VIZ., PSOAS MAGNUS AND ILIACUS MUSCLES. PROXIMAL EXTREMITIES OF THE INTERNAL FEMORAL OR ADDUCTOR MUSCLES, SHOWING THEIR MUTUAL RELATIONS. WHITE LINE OF THE PELVIC FASCIA. RIGHT SIDE.

Musculi coxæ—Muscles of the hip.

---

[1] The **linea arcuata* marks the attachment of the iliac fascia along the brim of the pelvis to the iliopectineal line, where it is inseparably blended with the obturator fascia.—TR.

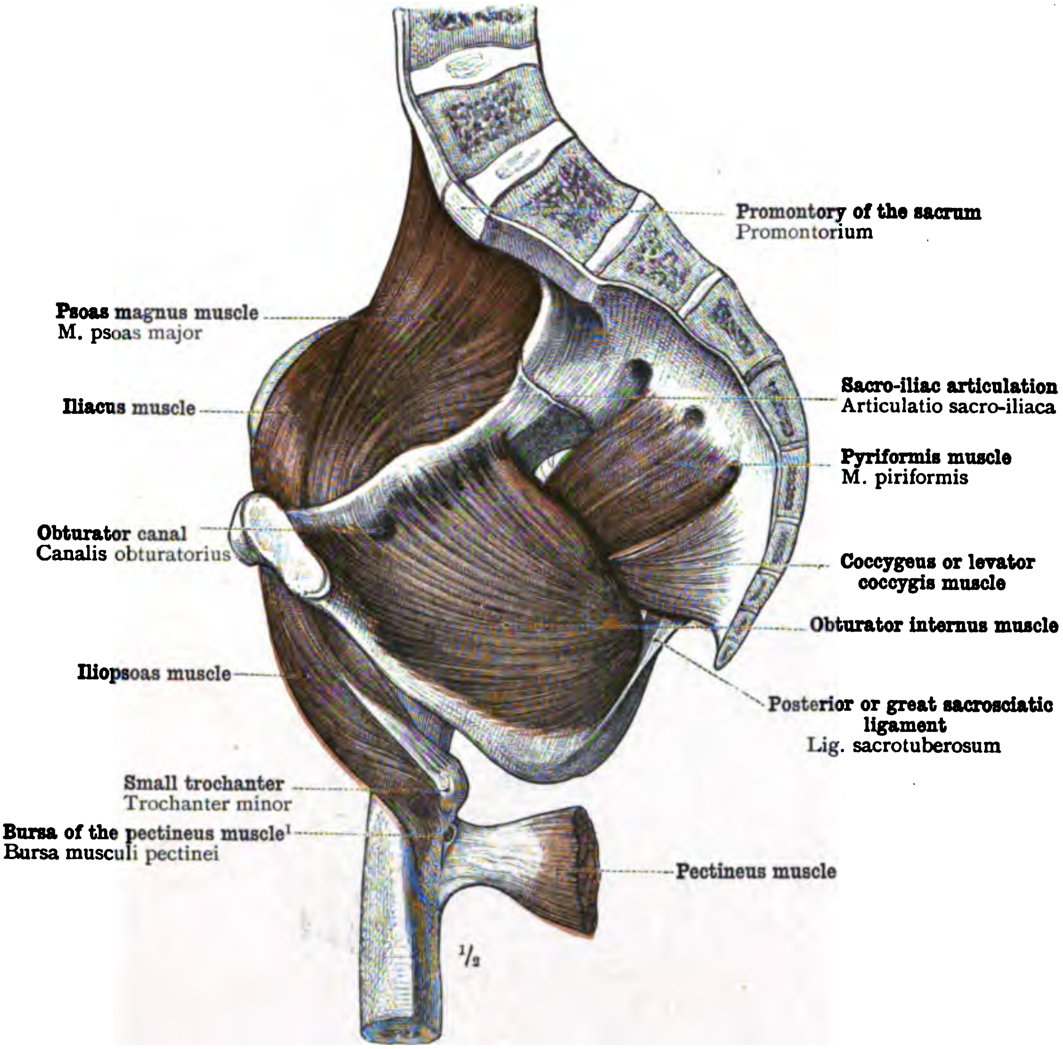


FIG. 596.—THE INTERNAL MUSCLES OF THE REGION OF THE HIP, SEEN FROM THE INNER SIDE, THE OBTURATOR FASCIA HAVING BEEN REMOVED, AND THE ILIOPSOAS MUSCLE FULLY EXPOSED UP TO ITS INSERTION INTO THE SMALL TROCHANTER: PYRIFORMIS AND OBTURATOR INTERNUS MUSCLES. BURSA OF THE PECTINEUS MUSCLE.

Musculi coxæ—Muscles of the hip.

---

[1] *Bursa of the Pectineus Muscle.*—This bursa is situate anteriorly to the tendon of the pectineus muscle close to its insertion, between the tendon and the femur.—TR.

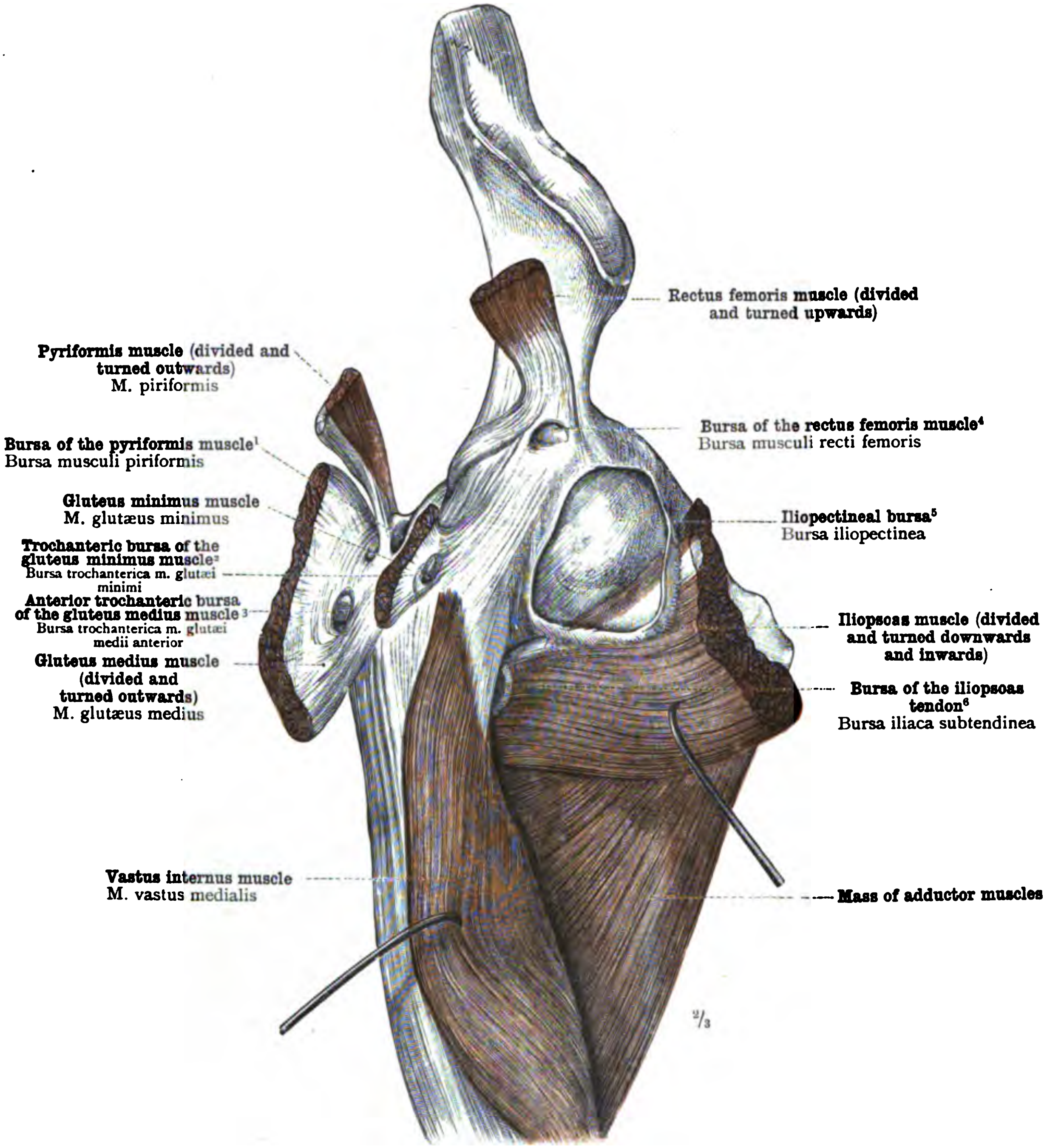

Rectus femoris muscle (divided and turned upwards)
Pyriformis muscle (divided and turned outwards)
M. piriformis
Bursa of the rectus femoris muscle[4]
Bursa musculi recti femoris
Bursa of the pyriformis muscle[1]
Bursa musculi piriformis
Gluteus minimus muscle
M. glutæus minimus
Iliopectineal bursa[5]
Bursa iliopectinea
Trochanteric bursa of the gluteus minimus muscle[2]
Bursa trochanterica m. glutæi minimi
Anterior trochanteric bursa of the gluteus medius muscle[3]
Bursa trochanterica m. glutæi medii anterior
Iliopsoas muscle (divided and turned downwards and inwards)
Gluteus medius muscle (divided and turned outwards)
M. glutæus medius
Bursa of the iliopsoas tendon[6]
Bursa iliaca subtendinea
Vastus internus muscle
M. vastus medialis
Mass of adductor muscles
2/3

FIG. 597.—THE BURSÆ SITUATE BENEATH THE TENDONS OF THE MUSCLES OF THE HIP ADJACENT TO THEIR INSERTIONS. ILIOPECTINEAL BURSA. RIGHT SIDE. SEEN FROM BEFORE.

The distal extremities of the muscles have been drawn away from the bone to expose the bursæ, which have been opened.

Musculi coxæ—Muscles of the hip.

---

[1] The *bursa of the pyriformis muscle* is situate beneath the tendon of that muscle close to its insertion.—TR.

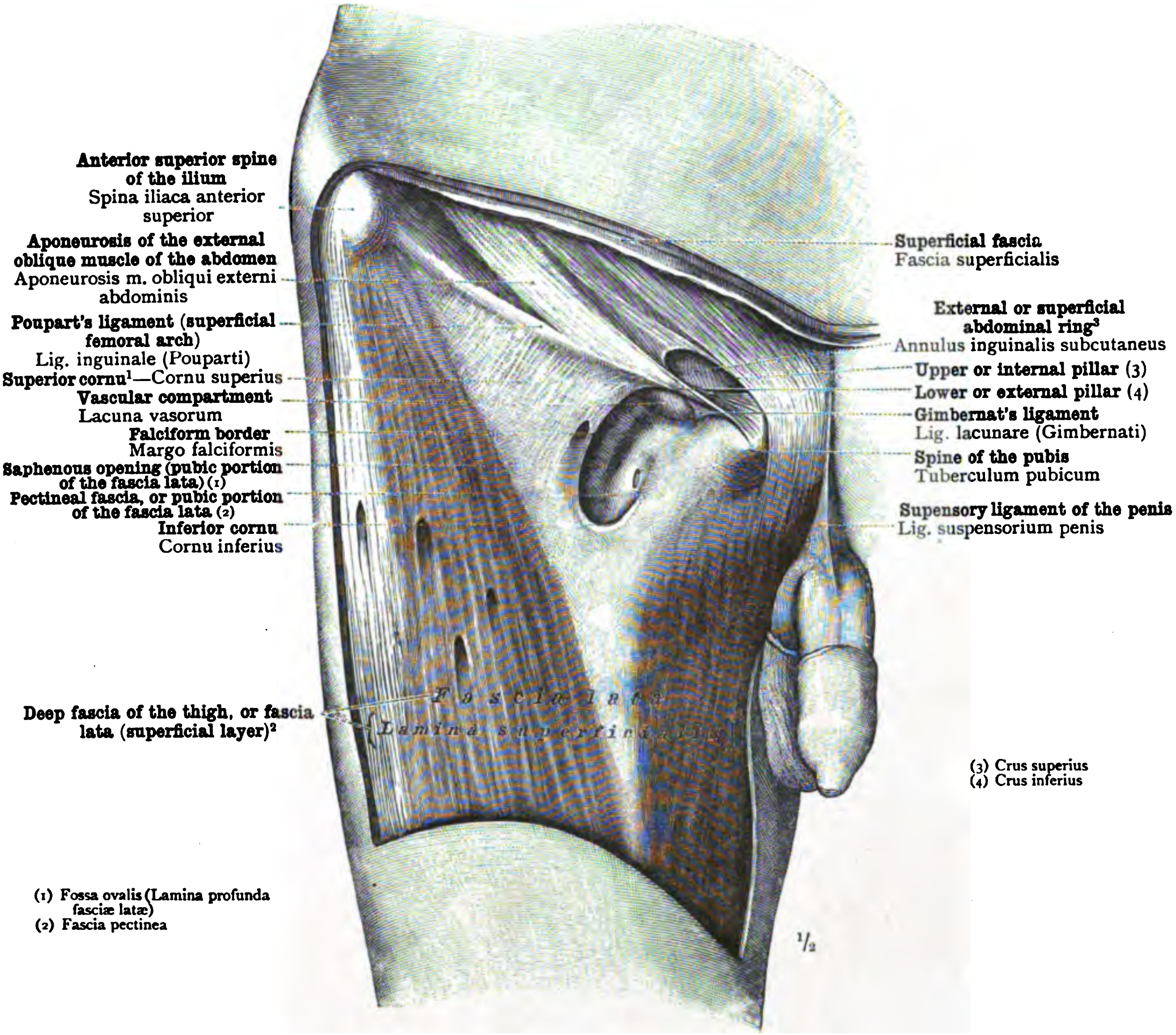
[2] The *trochanteric bursa of the gluteus minimus muscle* is situate beneath the tendon of that muscle close to its insertion.—TR.

[3] The *anterior trochanteric bursa of the gluteus medius muscle* is situate beneath the anterior part of the tendon of that muscle and the front of the outer surface of the great trochanter.—TR.

[4] The *bursa of the rectus femoris muscle* is situate between the anterior tendinous head of the muscle and the lower part of the anterior inferior spine of the ilium.—TR.

[5] The *iliopectineal bursa* is situate beneath the iliopsoas muscle as it passes over the iliopectineal eminence and the capsular ligament of the hip-joint. It frequently communicates with the joint.—TR.

[6] The *bursa of the iliopsoas tendon* is situate between the tendon of the iliopsoas muscle and the femur immediately above its insertion.—TR.


Anterior superior spine of the ilium
Spina iliaca anterior superior
Aponeurosis of the external oblique muscle of the abdomen
Aponeurosis m. obliqui externi abdominis
Poupart's ligament (superficial femoral arch)
Lig. inguinale (Pouparti)
Superior cornu[1]—Cornu superius
Vascular compartment
Lacuna vasorum
Falciform border
Margo falciformis
Saphenous opening (pubic portion of the fascia lata) (1)
Pectineal fascia, or pubic portion of the fascia lata (2)
Inferior cornu
Cornu inferius
Deep fascia of the thigh, or fascia lata (superficial layer)[2]
Fascia lata
Lamina superficialis
Superficial fascia
Fascia superficialis
External or superficial abdominal ring[3]
Annulus inguinalis subcutaneus
Upper or internal pillar (3)
Lower or external pillar (4)
Gimbernat's ligament
Lig. lacunare (Gimbernati)
Spine of the pubis
Tuberculum pubicum
Supensory ligament of the penis
Lig. suspensorium penis
(3) Crus superius
(4) Crus inferius
(1) Fossa ovalis (Lamina profunda fasciæ latæ)
(2) Fascia pectinea
1/2

---

[1] The *superior cornu of the saphenous opening* passes completely to the inner side of the femoral sheath to be attached to Gimbernat's ligament. This inner part of the superior cornu is termed the *femoral ligament* or *Hey's ligament*.—Tr.

[2] The upper part of this portion of the fascia lata, lying to the outer side of the saphenous opening, is termed the *iliac portion of the fascia lata*.—Tr.

[3] Or *external inguinal aperture*.

Fig. 598.—Deep Fascia of the Thigh or Fascia Lata of the Right Side, seen from Before; its Connexion with the Aponeurosis of the External Oblique Muscle of the Abdomen through its Attachment to Poupart's Ligament (Superficial Femoral Arch). The External or Superficial Abdominal Ring (the External Inguinal Aperture), lying immediately above the Inner Extremity of Poupart's Ligament, which forms the Lower or External Pillar of the Ring. The Saphenous Opening (Fossa Ovalis) which forms the Femoral Aperture of the Femoral or Crural Canal. The Pubic Portion of the Fascia Lata, or Pectineal Fascia, attached above to the Iliopectineal Line, forms the Floor of the Saphenous Opening, and, passing outwards, dips deeply beneath the Falciform Border of the Iliac Portion of the Fascia Lata and behind the Femoral Vessels to form the Back of the Femoral or Crural Sheath, by Means of which it is continued into the Iliac Fascia.

The vessels that descend through the vascular compartment or lacuna vasorum beneath Poupart's ligament (femoral artery and femoral vein) have been removed.

Musculi coxæ et femoris—Muscles of the hip and thigh.

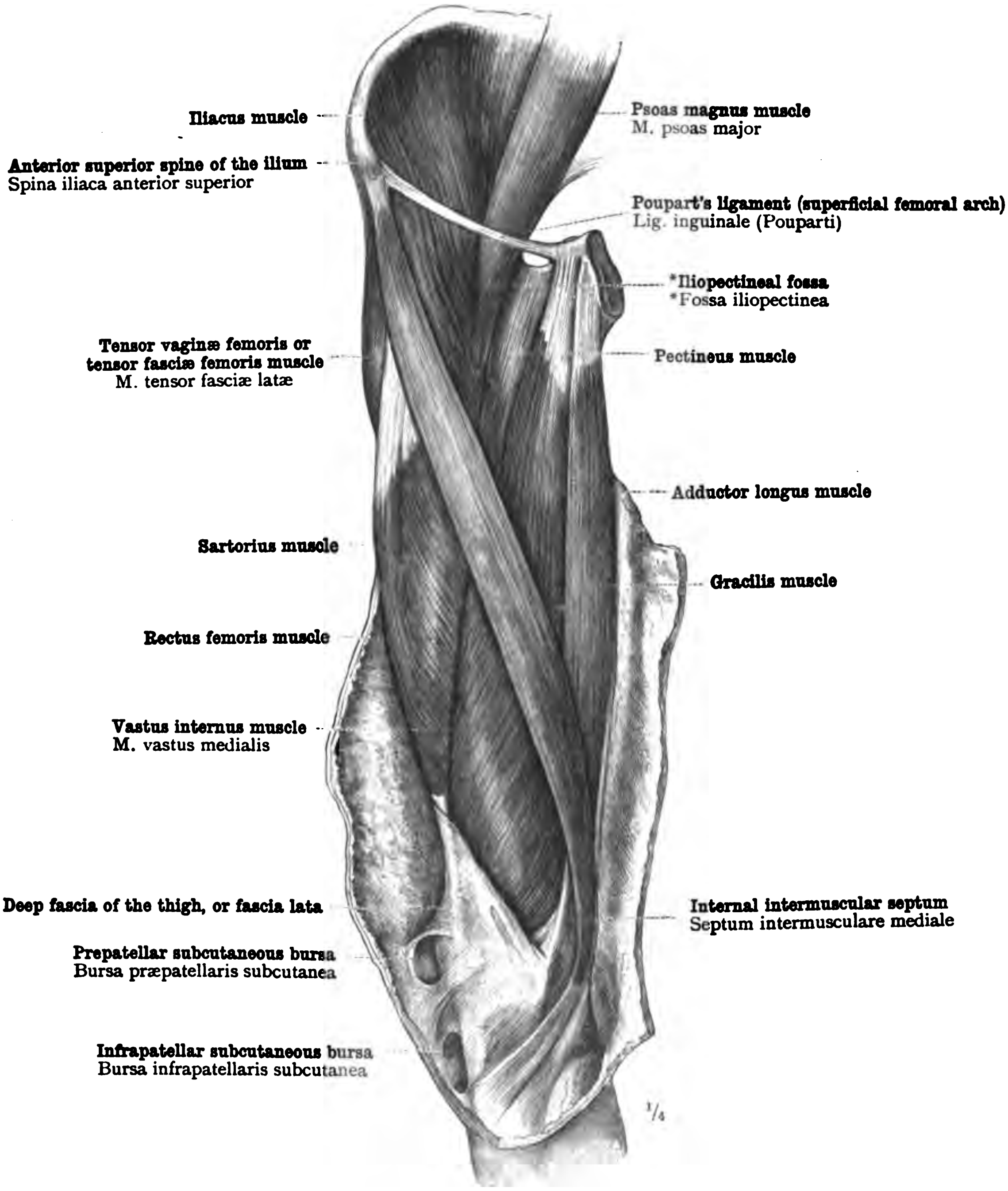

Iliacus muscle
Psoas magnus muscle
M. psoas major
Anterior superior spine of the ilium
Spina iliaca anterior superior
Poupart's ligament (superficial femoral arch)
Lig. inguinale (Pouparti)
***Iliopectineal fossa**
*Fossa iliopectinea
Tensor vaginæ femoris or tensor fasciæ femoris muscle
M. tensor fasciæ latæ
Pectineus muscle
Adductor longus muscle
Sartorius muscle
Gracilis muscle
Rectus femoris muscle
Vastus internus muscle
M. vastus medialis
Deep fascia of the thigh, or fascia lata
Internal intermuscular septum
Septum intermusculare mediale
Prepatellar subcutaneous bursa
Bursa præpatellaris subcutanea
Infrapatellar subcutaneous bursa
Bursa infrapatellaris subcutanea
1/4

FIG. 599.—ANTERIOR AND INTERNAL MUSCLES OF THE RIGHT THIGH, AS SEEN FROM BEFORE WITH THE LIMB ROTATED OUTWARDS: SARTORIUS MUSCLE; PORTIONS OF THE QUADRICEPS EXTENSOR CRURIS MUSCLE, OF THE INTERNAL FEMORAL OR ADDUCTOR MUSCLES, AND OF THE ILIOPSOAS MUSCLE. *ILIOPECTINEAL FOSSA. THE TRIANGULAR AREA, THE BASE OF WHICH IS FORMED BY POUPART'S LIGAMENT, THE SIDES BY THE SARTORIUS AND ADDUCTOR LONGUS MUSCLES, RESPECTIVELY, AND THE FLOOR BY THE ILIOPSOAS AND PECTINEUS MUSCLES, IS KNOWN AS SCARPA'S TRIANGLE (FOSSA SCARPÆ MAJOR, TRIGONUM FEMORALE). PREPATELLAR AND INFRAPATELLAR SUBCUTANEOUS BURSÆ.

In the region of the knee the fascia lata has not been removed.

Musculi femoris—Muscles of the thigh.

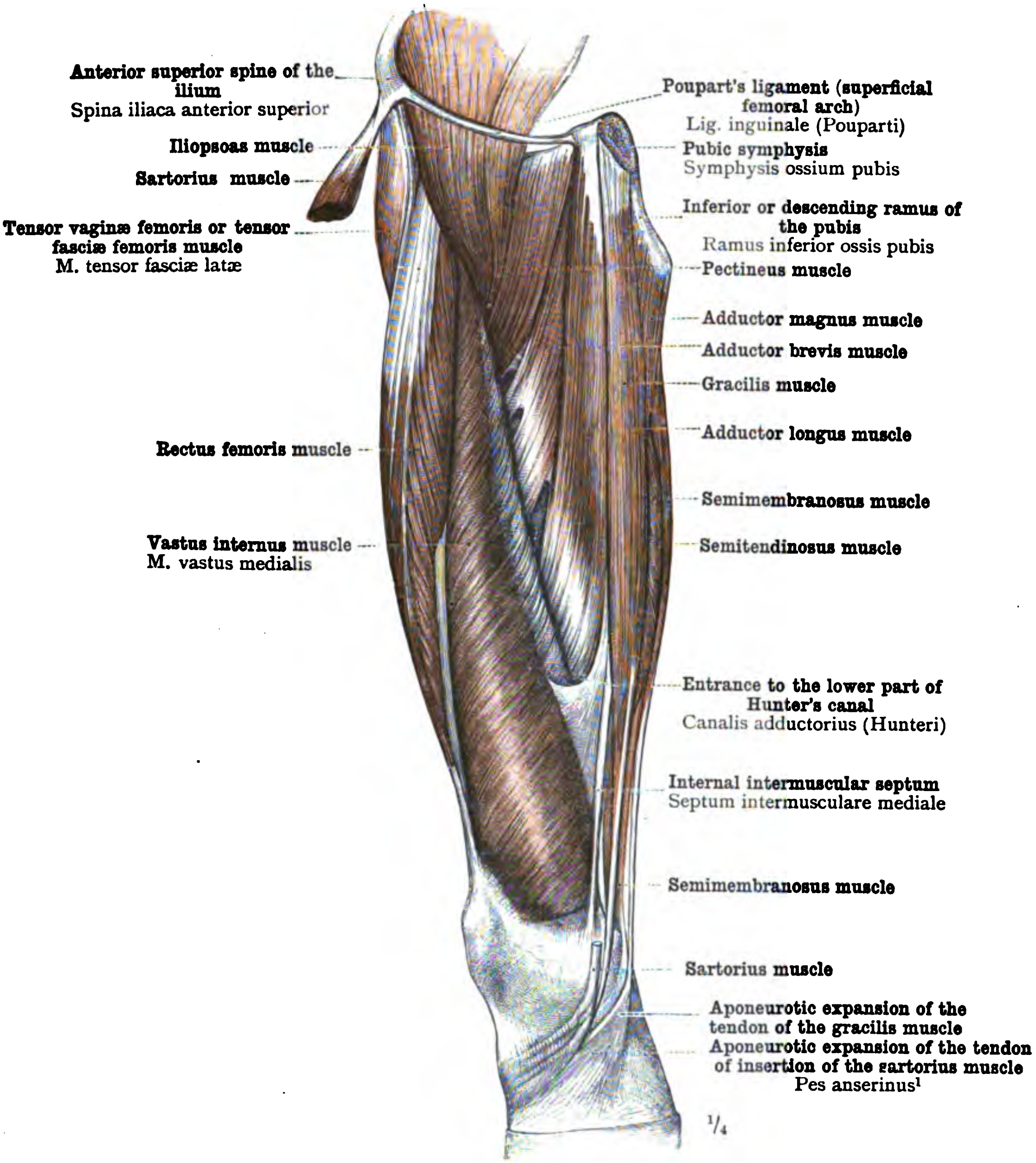

Anterior superior spine of the ilium
Spina iliaca anterior superior
Iliopsoas muscle
Sartorius muscle
Tensor vaginæ femoris or tensor fasciæ femoris muscle
M. tensor fasciæ latæ
Rectus femoris muscle
Vastus internus muscle
M. vastus medialis
Poupart's ligament (superficial femoral arch)
Lig. inguinale (Pouparti)
Pubic symphysis
Symphysis ossium pubis
Inferior or descending ramus of the pubis
Ramus inferior ossis pubis
Pectineus muscle
Adductor magnus muscle
Adductor brevis muscle
Gracilis muscle
Adductor longus muscle
Semimembranosus muscle
Semitendinosus muscle
Entrance to the lower part of Hunter's canal
Canalis adductorius (Hunteri)
Internal intermuscular septum
Septum intermusculare mediale
Semimembranosus muscle
Sartorius muscle
Aponeurotic expansion of the tendon of the gracilis muscle
Aponeurotic expansion of the tendon of insertion of the sartorius muscle
Pes anserinus[1]
1/4

Fig. 600.—Anterior and Internal Muscles of the Right Thigh, as seen from Before with the Limb rotated outwards, the Sartorius Muscle having been removed. Of the Quadriceps Extensor Cruris Muscle, we see the Long Head, the Rectus Femoris Muscle, and the Inner Head, the Vastus Internus Muscle: of the Internal Femoral or Adductor Muscles, we see the Gracilis, Adductor Longus, Adductor Brevis, and Pectineus Muscles. Behind the Gracilis Muscles we see Portions of the Posterior Femoral or Hamstring Muscles: Semimembranosus Muscle and Semitendinosus Muscle. Beneath the Sartorius Muscle and between the Vastus Internus Muscle, on the Outer Side, and the Adductor Longus (above) and the Adductor Magnus (below), on the Inner Side, lies Hunter's Canal (Canalis Adductorius Hunteri), the Fascial Roof of which has been removed except for a Short Space at the Lower End of the Canal.

Musculi femoris—Muscles of the thigh.

---

[1] *Pes Anserinus.*—The tendon of insertion of the sartorius muscle sends off from its upper border an aponeurotic expansion to join that of the common extensor over the front of the capsule of the knee-joint, and from its lower border another to the deep fascia of the leg; immediately below and behind this latter is a similar aponeurotic expansion from the tendon of insertion of the gracilis muscle to the deep fascia of the leg. From the resemblance of the aponeurotic expansions of the sartorius tendon to the foot of a goose, it is called by the author *pes anserinus*, but it is to be noted that this name is given by English anatomists to an entirely different structure—to wit, the plexus formed in the substance of the parotid gland and on the side of the face by the freely communicating twigs of the temporofacial and cervicofacial branches of the facial nerve, known also as the "parotid plexus" (see Fig. 1314, p. 871, sect. vi. of this work).—Tr.

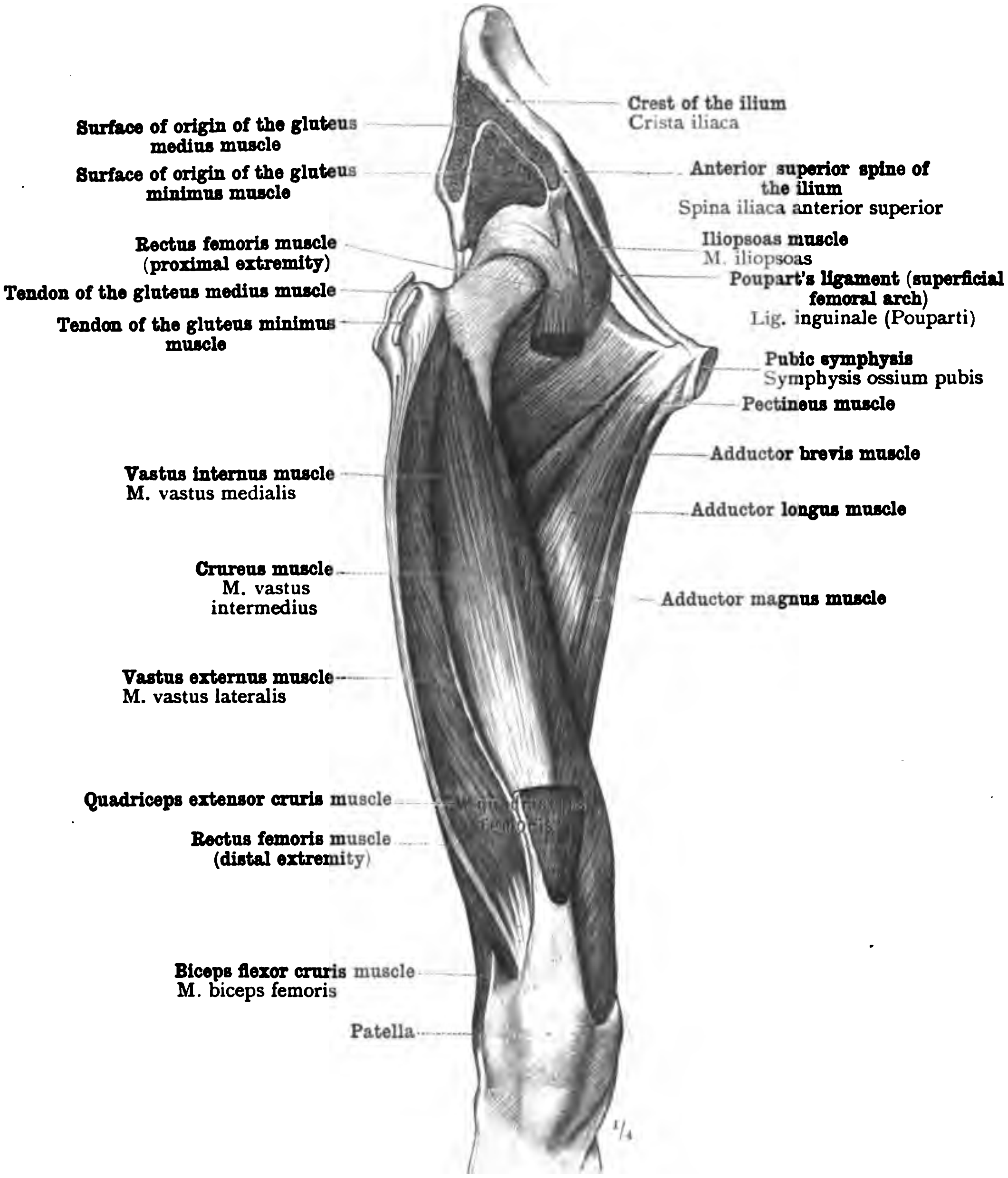

Surface of origin of the gluteus medius muscle
Surface of origin of the gluteus minimus muscle
Rectus femoris muscle (proximal extremity)
Tendon of the gluteus medius muscle
Tendon of the gluteus minimus muscle
Vastus internus muscle
M. vastus medialis
Crureus muscle
M. vastus intermedius
Vastus externus muscle
M. vastus lateralis
Quadriceps extensor cruris muscle
Rectus femoris muscle (distal extremity)
Biceps flexor cruris muscle
M. biceps femoris
Patella
Crest of the ilium
Crista iliaca
Anterior superior spine of the ilium
Spina iliaca anterior superior
Iliopsoas muscle
M. iliopsoas
Poupart's ligament (superficial femoral arch)
Lig. inguinale (Pouparti)
Pubic symphysis
Symphysis ossium pubis
Pectineus muscle
Adductor brevis muscle
Adductor longus muscle
Adductor magnus muscle
M. quadriceps femoris
1/4

FIG. 601.—ANTERIOR AND INTERNAL MUSCLES OF THE RIGHT THIGH, WITH THE LIMB IN THE NORMAL POSITION, THE SARTORIUS, GRACILIS, AND RECTUS FEMORIS MUSCLES HAVING BEEN REMOVED. SEEN FROM BEFORE. VASTUS EXTERNUS, CRUREUS, AND VASTUS INTERNUS MUSCLES, THE OUTER, MIDDLE, AND INNER HEADS OF THE QUADRICEPS EXTENSOR CRURIS MUSCLES; ADDUCTOR LONGUS AND ADDUCTOR BREVIS MUSCLES, AND THE INNER PORTION OF THE ADDUCTOR MAGNUS MUSCLE; PECTINEUS MUSCLE.

Musculi femoris—Muscles of the thigh.

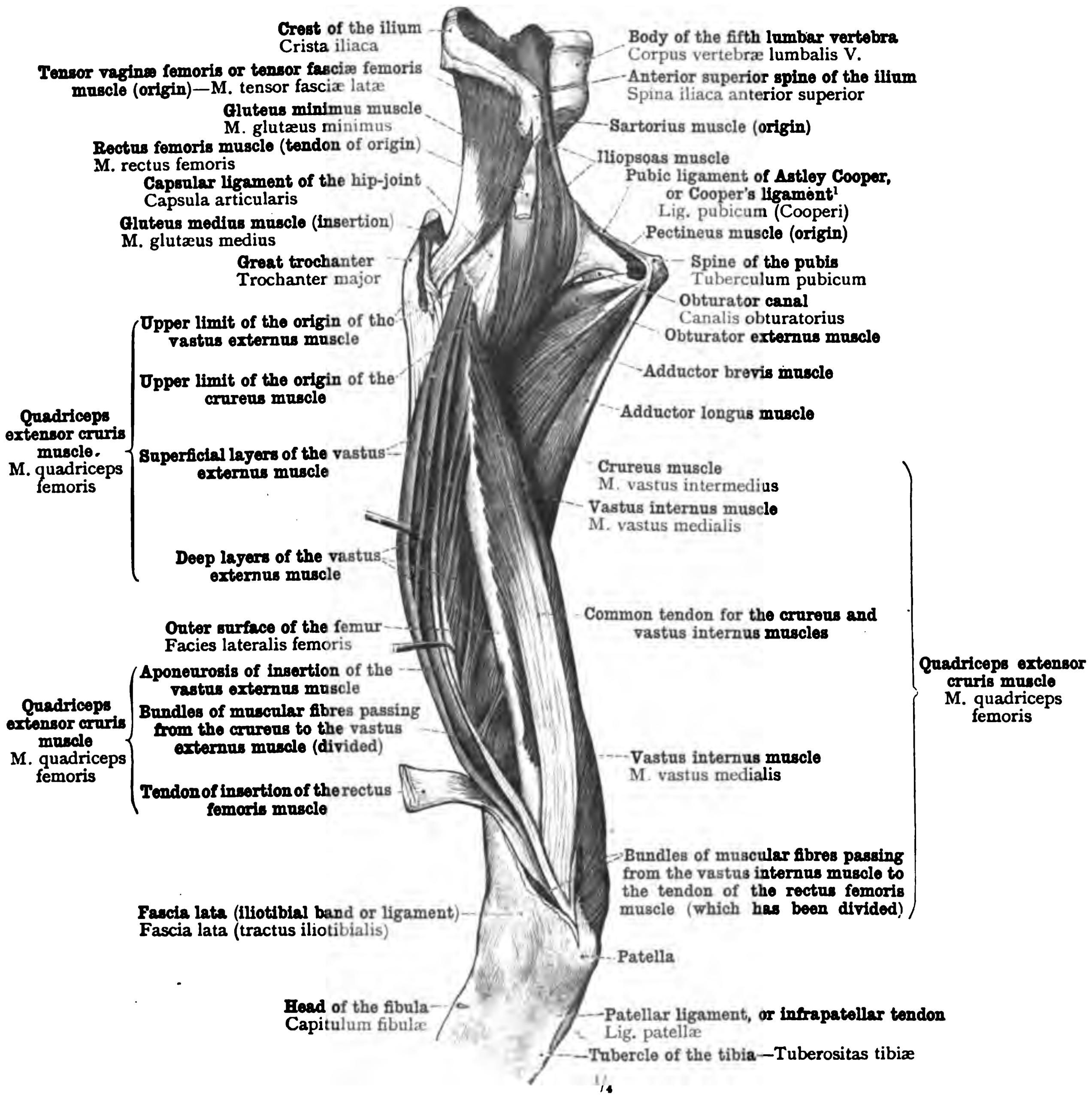

Crest of the ilium
Crista iliaca
Tensor vaginæ femoris or tensor fasciæ femoris **muscle (origin)**—M. tensor fasciæ latæ
Gluteus minimus muscle
M. glutæus minimus
Rectus femoris muscle (tendon of origin)
M. rectus femoris
Capsular ligament of the hip-joint
Capsula articularis
Gluteus medius muscle (insertion)
M. glutæus medius
Great trochanter
Trochanter major
Upper limit of the origin of the **vastus externus muscle**
Upper limit of the origin of the **crureus muscle**
Quadriceps extensor cruris muscle.
M. quadriceps femoris
Superficial layers of the vastus **externus muscle**
Deep layers of the vastus **externus muscle**
Outer surface of the femur
Facies lateralis femoris
Aponeurosis of insertion of the **vastus externus** muscle
Quadriceps extensor cruris muscle
M. quadriceps femoris
Bundles of muscular fibres passing **from the crureus to the** vastus **externus muscle (divided)**
Tendon of insertion of the rectus **femoris muscle**
Fascia lata (**iliotibial band** or ligament)
Fascia lata (tractus iliotibialis)
Head of the fibula
Capitulum fibulæ
Body of the **fifth lumbar vertebra**
Corpus vertebræ lumbalis V.
Anterior superior **spine of the ilium**
Spina iliaca anterior superior
Sartorius muscle (**origin**)
Iliopsoas muscle
Pubic ligament **of Astley Cooper,** or **Cooper's ligament**[1]
Lig. pubicum (Cooperi)
Pectineus muscle **(origin)**
Spine **of the pubis**
Tuberculum pubicum
Obturator **canal**
Canalis obturatorius
Obturator **externus muscle**
Adductor brevis **muscle**
Adductor longus **muscle**
Crureus muscle
M. vastus intermedius
Vastus internus muscle
M. vastus medialis
Common tendon for **the crureus and** vastus internus **muscles**
Quadriceps extensor cruris muscle
M. quadriceps femoris
Vastus internus **muscle**
M. vastus medialis
Bundles of muscular **fibres passing** from the vastus **internus muscle to** the tendon of **the rectus femoris** muscle (which **has been divided**)
Patella
Patellar ligament, **or infrapatellar tendon**
Lig. patellæ
Tubercle of the tibia—Tuberositas tibiæ
1/4

FIG. 602.—STRATIFICATION OF THE VASTUS EXTERNUS MUSCLE, AS SEEN AFTER THE REMOVAL OF THE RECTUS FEMORIS MUSCLE, THE LAYERS OF THE VASTUS EXTERNUS MUSCLE HAVING BEEN WELL SEPARATED FROM THE FEMUR. OUTER LIMIT OF ORIGIN OF THE CRUREUS (VASTUS INTERMEDIUS) MUSCLE. STRATIFICATION OF THE TENDONS (APONEUROSES) OF THE VASTUS EXTERNUS, CRUREUS, AND RECTUS FEMORIS MUSCLES ABOVE THE KNEE-JOINT.

The thigh, which has been rotated inwards, is seen from before. The bundles of the vastus externus muscle that arise from the fascia lata are shown in Fig. 616.

Musculi femoris—Muscles of the thigh.

---

[1] See note [2] to p. 390.

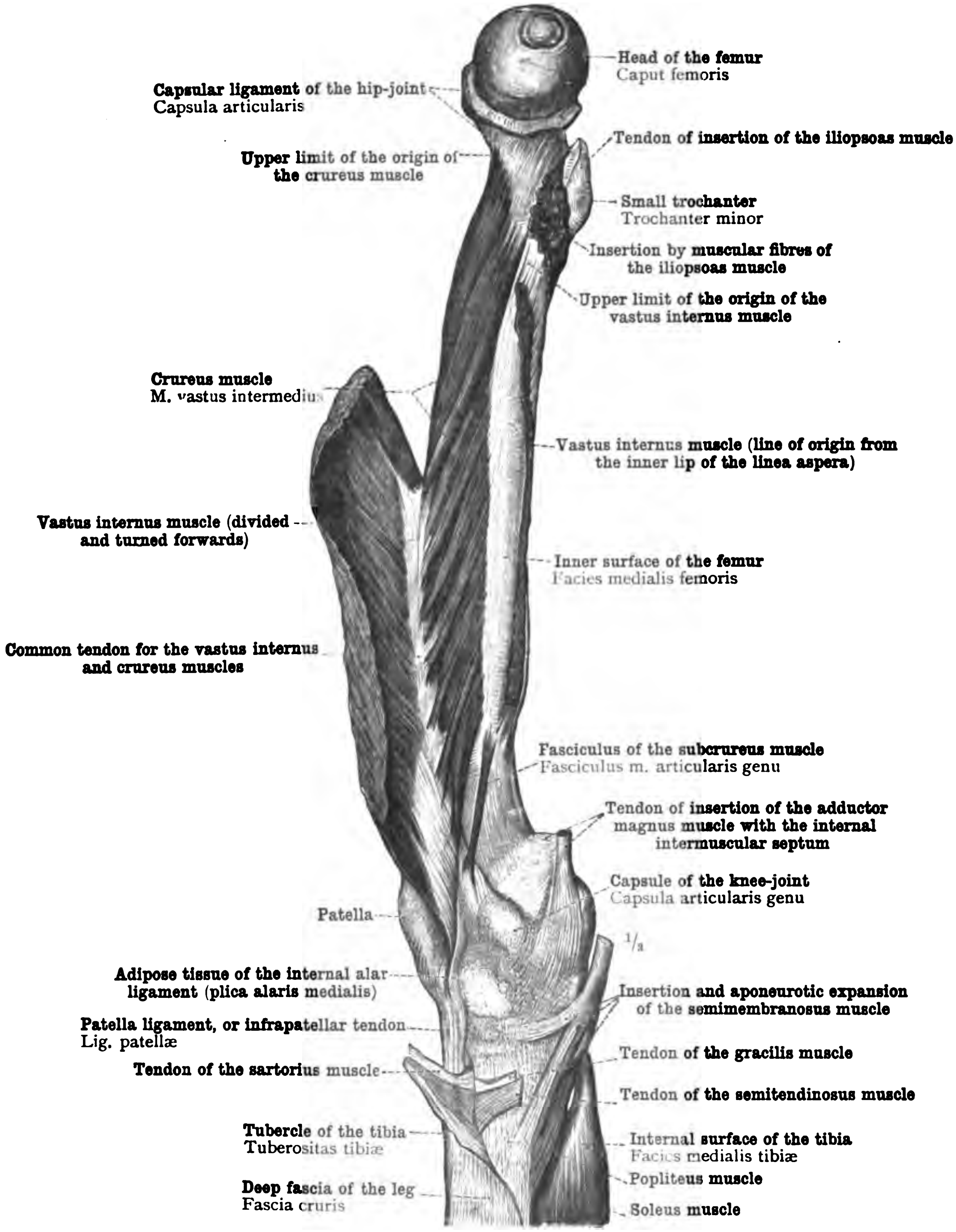

Head of the femur
Caput femoris
Capsular ligament of the hip-joint
Capsula articularis
Tendon of insertion of the iliopsoas muscle
Upper limit of the origin of the crureus muscle
Small trochanter
Trochanter minor
Insertion by muscular fibres of the iliopsoas muscle
Upper limit of the origin of the vastus internus muscle
Crureus muscle
M. vastus intermedius
Vastus internus muscle (line of origin from the inner lip of the linea aspera)
Vastus internus muscle (divided and turned forwards)
Inner surface of the femur
Facies medialis femoris
Common tendon for the vastus internus and crureus muscles
Fasciculus of the subcrureus muscle
Fasciculus m. articularis genu
Tendon of insertion of the adductor magnus muscle with the internal intermuscular septum
Capsule of the knee-joint
Capsula articularis genu
Patella
1/3
Adipose tissue of the internal alar ligament (plica alaris medialis)
Insertion and aponeurotic expansion of the semimembranosus muscle
Patella ligament, or infrapatellar tendon
Lig. patellæ
Tendon of the gracilis muscle
Tendon of the sartorius muscle
Tendon of the semitendinosus muscle
Tubercle of the tibia
Tuberositas tibiæ
Internal surface of the tibia
Facies medialis tibiæ
Popliteus muscle
Deep fascia of the leg
Fascia cruris
Soleus muscle

FIG. 603.—INNER LIMIT OF THE ORIGIN OF THE CRUREUS (VASTUS INTERMEDIUS) MUSCLE, AND THE BLENDING OF THE FASCICULI OF THAT MUSCLE WITH THOSE OF THE VASTUS INTERNUS (VASTUS MEDIALIS) MUSCLE IN THEIR INSERTION INTO THE DEEP APONEUROSIS OF THE QUADRICEPS EXTENSOR CRURIS MUSCLE. RIGHT THIGH, SEEN FROM WITHIN.

The vastus internus muscle has been divided longitudinally throughout its entire length, and has been turned forwards.

Musculi femoris—Muscles of the thigh.

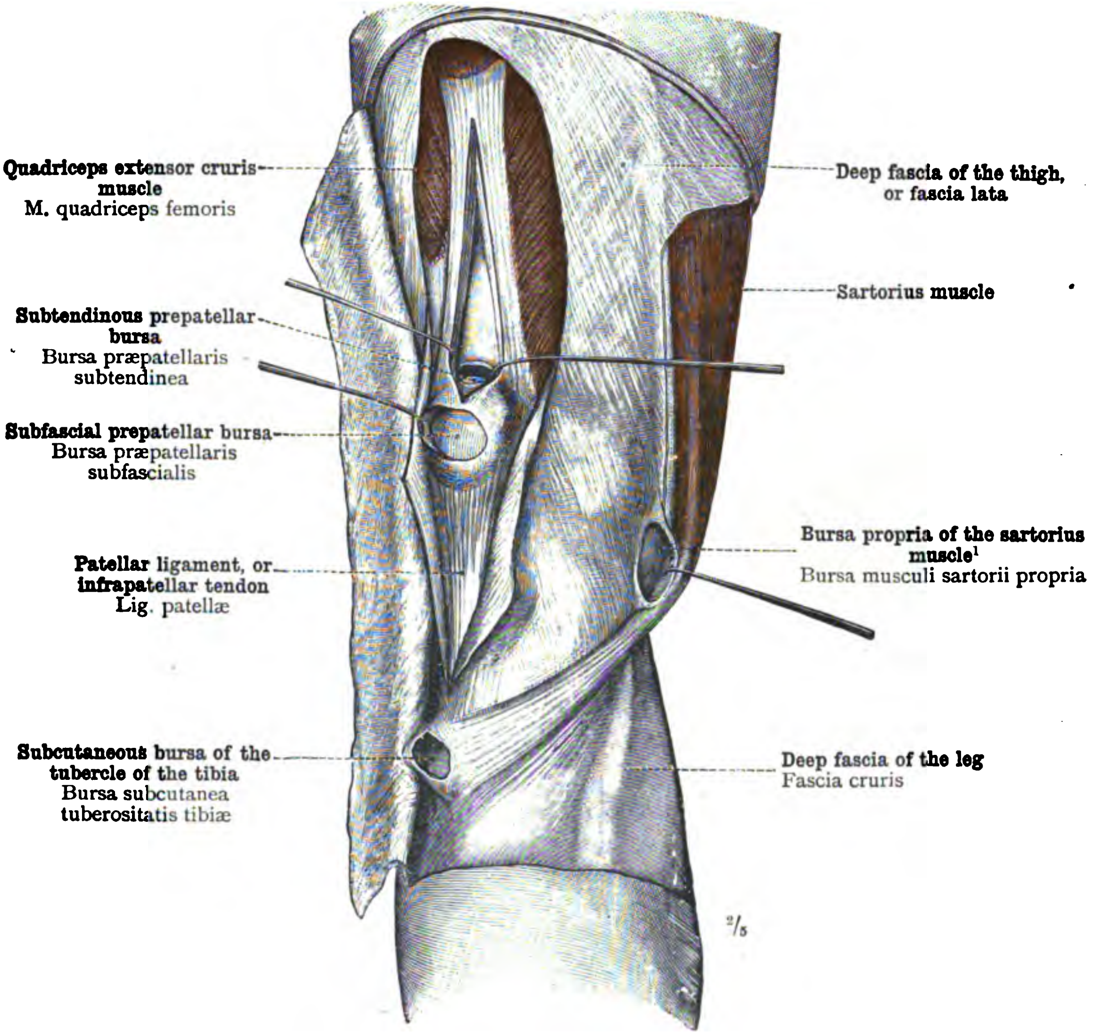

Quadriceps extensor cruris muscle
M. quadriceps femoris
Subtendinous prepatellar bursa
Bursa præpatellaris subtendinea
Subfascial prepatellar bursa
Bursa præpatellaris subfascialis
Patellar ligament, or infrapatellar tendon
Lig. patellæ
Subcutaneous bursa of the tubercle of the tibia
Bursa subcutanea tuberositatis tibiæ
Deep fascia of the thigh, or fascia lata
Sartorius muscle
Bursa propria of the sartorius muscle[1]
Bursa musculi sartorii propria
Deep fascia of the leg
Fascia cruris
2/5

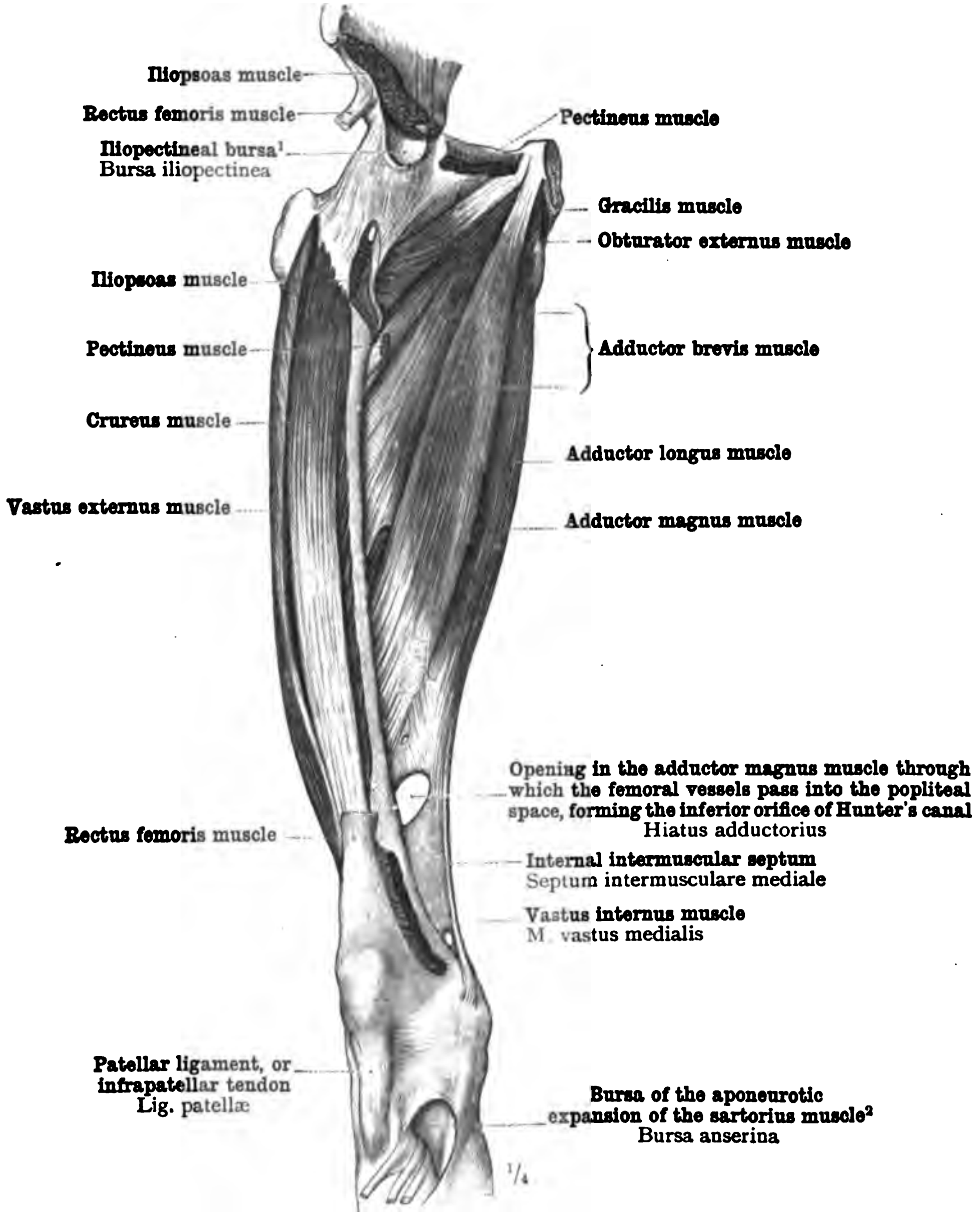
FIG. 604.—DEMONSTRATION OF CERTAIN BURSÆ IN THE ANTERIOR REGION OF THE KNEE. BURSA PROPRIA OF THE SARTORIUS MUSCLE. SUBCUTANEOUS BURSA OF THE TUBERCLE OF THE TIBIA. REGION OF THE RIGHT KNEE, SEEN OBLIQUELY FROM BEFORE AND WITHIN.

The subfascial prepatellar bursa was opened by a longitudinal incision through the fascia lata over the front of the patella, and the subtendinous prepatellar bursa was opened by a longitudinal incision through the common tendon of the quadriceps extensor cruris muscle (suprapatellar tendon) immediately above the patella.

Musculi femoris—Muscles of the thigh.

---

[1] The *bursa propria of the sartorius muscle* is situate between the sartorius muscle and the upper part of the capsule of the knee-joint at the point where the muscle becomes tendinous. It is to be distinguished from a more distally situate bursa beneath the aponeurotic expansion of the tendon of the sartorius, called by the author *bursa anserina*. See note [1] to p. 362.—TR.


Iliopsoas muscle
Rectus femoris muscle
Iliopectineal bursa[1]
Bursa iliopectinea
Pectineus muscle
Gracilis muscle
Obturator externus muscle
Iliopsoas muscle
Pectineus muscle
Adductor brevis muscle
Crureus muscle
Adductor longus muscle
Vastus externus muscle
Adductor magnus muscle
Opening in the adductor magnus muscle through which the femoral vessels pass into the popliteal space, forming the inferior orifice of Hunter's canal
Hiatus adductorius
Rectus femoris muscle
Internal intermuscular septum
Septum intermusculare mediale
Vastus internus muscle
M. vastus medialis
Patellar ligament, or infrapatellar tendon
Lig. patellæ
Bursa of the aponeurotic expansion of the sartorius muscle[2]
Bursa anserina
1/4

[1] See note 5 to p. 348.

[2] See note 1 to p. 362.

FIG. 605.—INTERNAL FEMORAL OR ADDUCTOR MUSCLES, DISPLAYED BY THE REMOVAL OF THE SARTORIUS, GRACILIS, PECTINEUS, RECTUS FEMORIS, AND VASTUS INTERNUS MUSCLES, THE LIMB BEING ROTATED OUTWARDS. RIGHT THIGH, SEEN FROM BEFORE. ADDUCTOR BREVIS AND ADDUCTOR LONGUS MUSCLES; INNER PORTION OF THE ADDUCTOR MAGNUS MUSCLE, WITH THE INTERNAL INTERMUSCULAR SEPTUM, AND THE OPENING (HIATUS ADDUCTORIUS) THROUGH WHICH THE FEMORAL VESSELS PASS INTO THE POPLITEAL SPACE. (THIS OPENING CONSTITUTES THE INFERIOR ORIFICE OF HUNTER'S CANAL.) OBTURATOR EXTERNUS MUSCLE. BURSA OF THE APONEUROTIC EXPANSION OF THE SARTORIUS MUSCLE (BURSA ANSERINA) (*see note* 1 *to p.* 362).

Musculi femoris—Muscles of the thigh.

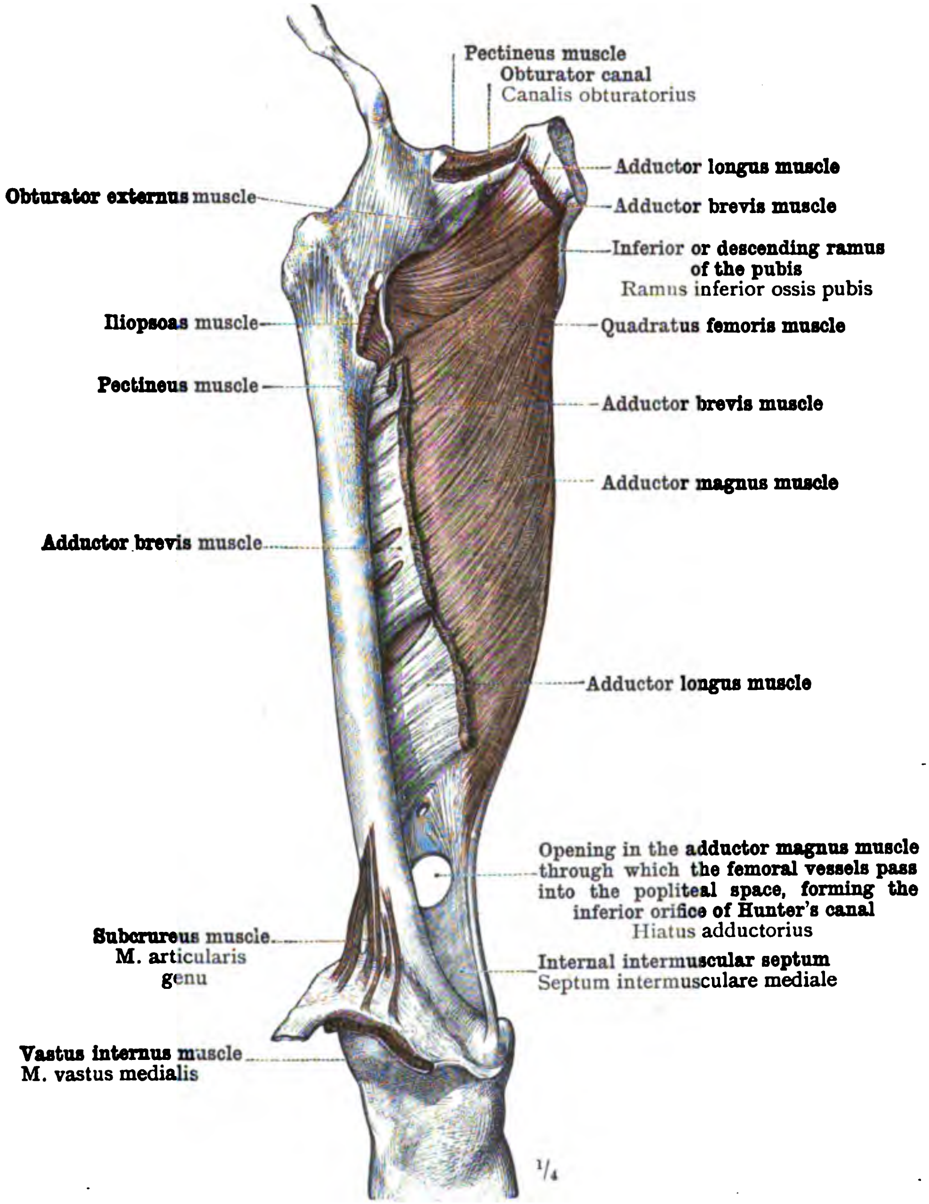
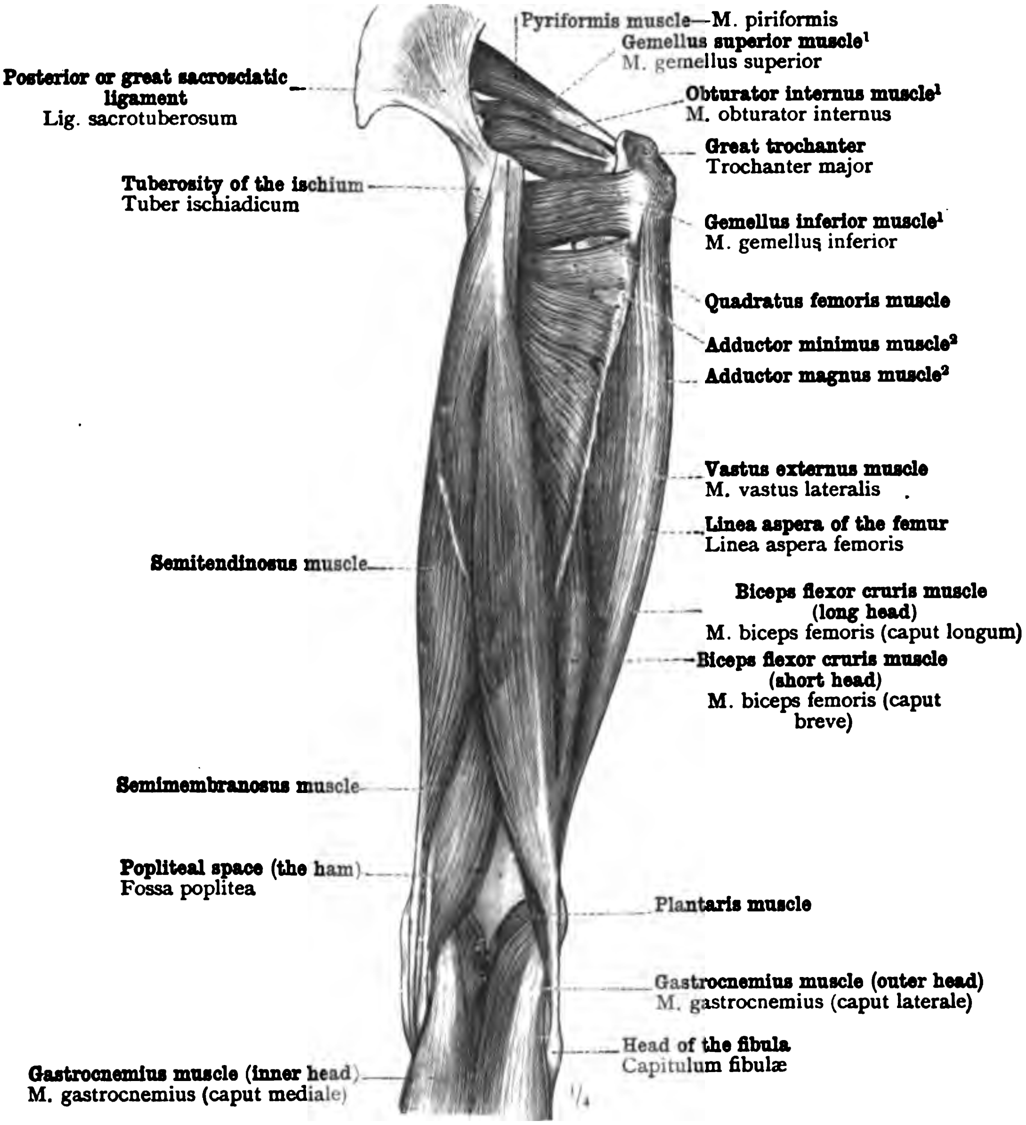


FIG. 606.—ADDUCTOR MAGNUS MUSCLE WITH THE INTERNAL INTERMUSCULAR SEPTUM AND THE OPENING (HIATUS ADDUCTORIUS) THROUGH WHICH THE FEMORAL VESSELS PASS INTO THE POPLITEAL SPACE. (THIS OPENING CONSTITUTES THE INFERIOR ORIFICE OF HUNTER'S CANAL.) RIGHT THIGH, SEEN FROM BEFORE. OBTURATOR EXTERNUS MUSCLE. SUBCRUREUS MUSCLE.

The quadriceps extensor cruris, pectineus, adductor longus, and adductor brevis muscles have been removed. The limb is in the position of external rotation.

Musculi femoris—Muscles of the thigh.

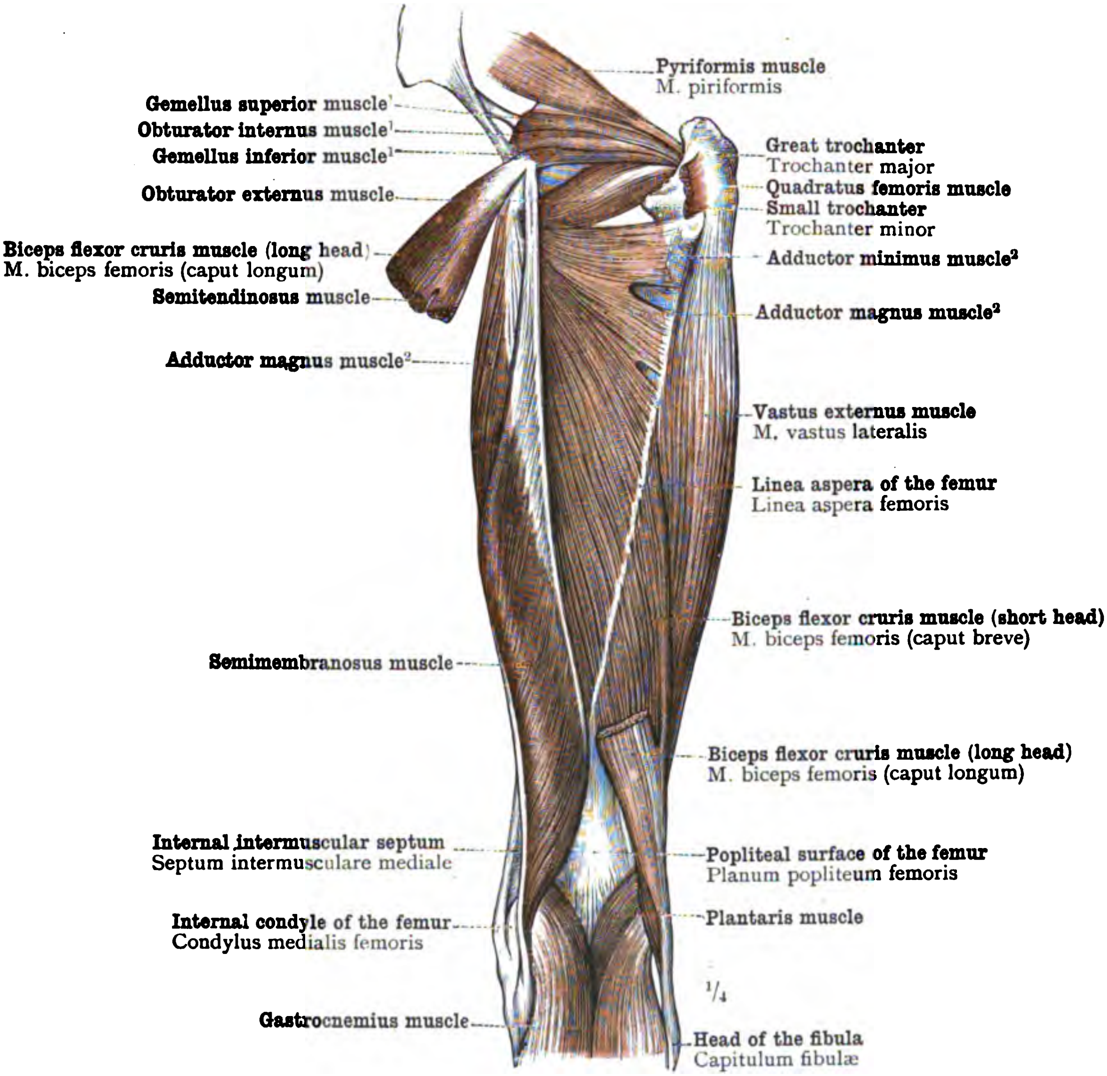

Pyriformis muscle—M. piriformis
Gemellus superior muscle[1]
M. gemellus superior
Posterior or great sacrosciatic ligament
Lig. sacrotuberosum
Obturator internus muscle[1]
M. obturator internus
Great trochanter
Trochanter major
Tuberosity of the ischium
Tuber ischiadicum
Gemellus inferior muscle[1]
M. gemellus inferior
Quadratus femoris muscle
Adductor minimus muscle[2]
Adductor magnus muscle[2]
Vastus externus muscle
M. vastus lateralis
Linea aspera of the femur
Linea aspera femoris
Semitendinosus muscle
Biceps flexor cruris muscle (long head)
M. biceps femoris (caput longum)
Biceps flexor cruris muscle (short head)
M. biceps femoris (caput breve)
Semimembranosus muscle
Popliteal space (the ham)
Fossa poplitea
Plantaris muscle
Gastrocnemius muscle (outer head)
M. gastrocnemius (caput laterale)
Head of the fibula
Capitulum fibulæ
Gastrocnemius muscle (inner head)
M. gastrocnemius (caput mediale)
1/4

[1] See note [1] to p. 340.

[2] See note [2] to p. 345.

FIG. 607.—MUSCLES ON THE POSTERIOR AND OUTER SIDES OF THE RIGHT THIGH, THE LIMB BEING ROTATED INWARDS. SEEN FROM BEHIND. BICEPS FLEXOR CRURIS MUSCLE; SEMITENDINOSUS MUSCLE; DISTAL PORTION OF THE SEMIMEMBRANOSUS MUSCLE. RELATIONS OF THE GASTROCNEMIUS MUSCLE TO THESE MUSCLES. POPLITEAL SPACE (THE HAM). QUADRATUS FEMORIS MUSCLE, WITH THE ADDUCTOR MAGNUS MUSCLE (*see note* 2 *above*) IN CONTACT WITH ITS LOWER BORDER. ADDUCTOR MINIMUS MUSCLE (*see note* 2 *above*), NOT CLEARLY SEPARABLE ABOVE FROM THE ADDUCTOR MAGNUS MUSCLE (*see note* 2 *above*). VASTUS EXTERNUS MUSCLE, THE OUTER HEAD OF THE QUADRICEPS EXTENSOR CRURIS MUSCLE.

Musculi femoris—Muscles of the thigh.


Pyriformis muscle
M. piriformis
Gemellus superior muscle[1]
Obturator internus muscle[1]
Gemellus inferior muscle[1]
Obturator externus muscle
Great trochanter
Trochanter major
Quadratus femoris muscle
Small trochanter
Trochanter minor
Biceps flexor cruris muscle (long head)
M. biceps femoris (caput longum)
Adductor minimus muscle[2]
Semitendinosus muscle
Adductor magnus muscle[2]
Adductor magnus muscle[2]
Vastus externus muscle
M. vastus lateralis
Linea aspera of the femur
Linea aspera femoris
Biceps flexor cruris muscle (short head)
M. biceps femoris (caput breve)
Semimembranosus muscle
Biceps flexor cruris muscle (long head)
M. biceps femoris (caput longum)
Internal intermuscular septum
Septum intermusculare mediale
Popliteal surface of the femur
Planum popliteum femoris
Internal condyle of the femur
Condylus medialis femoris
Plantaris muscle
1/4
Gastrocnemius muscle
Head of the fibula
Capitulum fibulæ

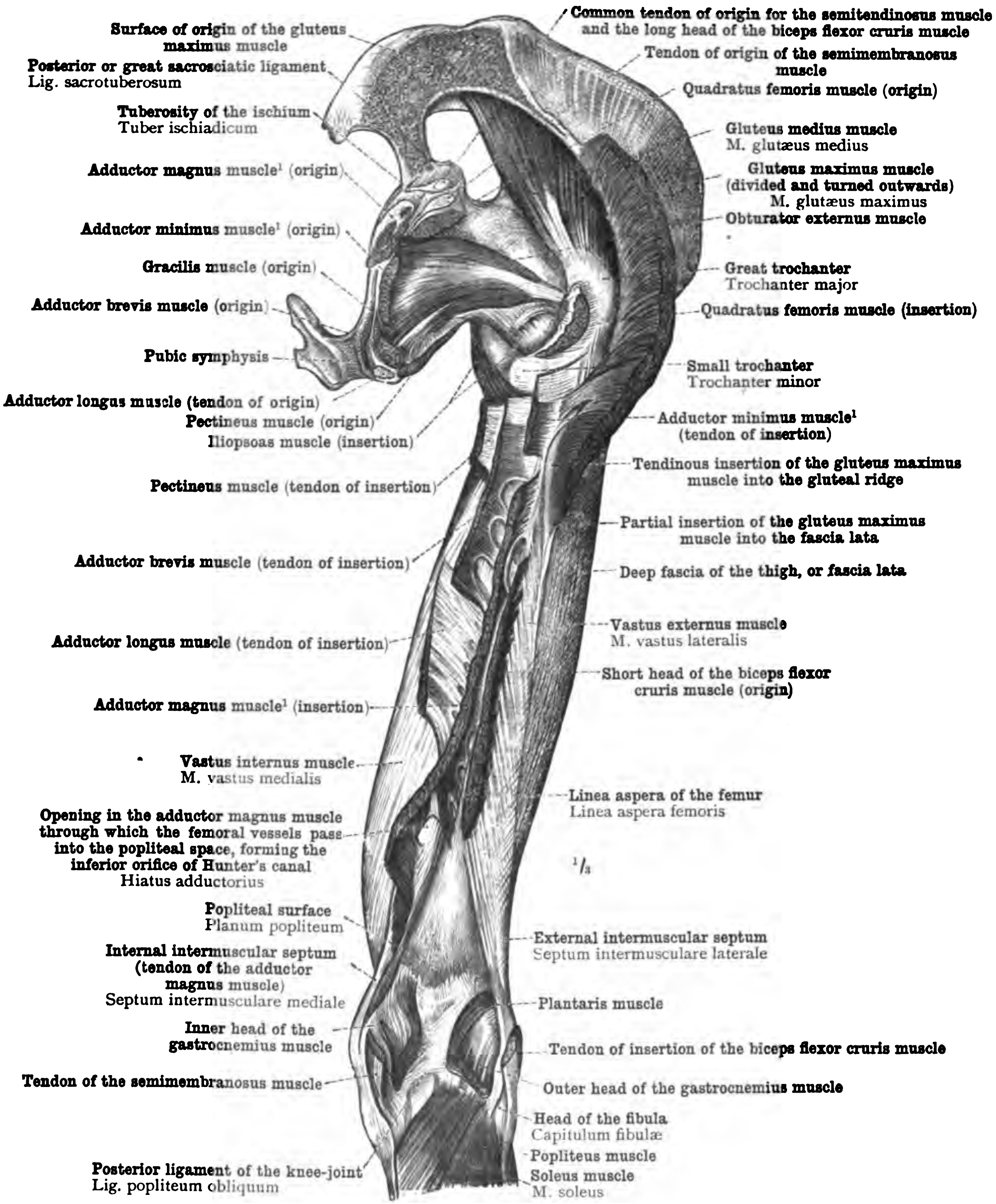
[1] See note [1] to p. 340.

[2] See note [2] to p. 345.

FIG. 608.—MUSCLES AT THE BACK OF THE RIGHT THIGH, THE LIMB BEING ROTATED INWARDS, THE LONG HEAD OF THE BICEPS FLEXOR CRURIS AND THE SEMITENDINOSUS MUSCLE HAVING BEEN REMOVED. SEEN FROM BEHIND. SEMIMEMBRANOSUS MUSCLE; SHORT HEAD OF THE BICEPS FLEXOR CRURIS MUSCLE; ADDUCTOR MAGNUS (*see note* [2] *above*) AND ADDUCTOR MINIMUS (*see note* [2] *above*) MUSCLES; VASTUS EXTERNUS MUSCLE.

By the removal of the quadratus femoris muscle, the outer portion of the obturator externus muscle has been exposed.

Musculi femoris—Muscles of the thigh.


Surface of origin of the gluteus maximus muscle
Posterior or great sacrosciatic ligament
Lig. sacrotuberosum
Tuberosity of the ischium
Tuber ischiadicum
Adductor magnus muscle¹ (origin)
Adductor minimus muscle¹ (origin)
Gracilis muscle (origin)
Adductor brevis muscle (origin)
Pubic symphysis
Adductor longus muscle (tendon of origin)
Pectineus muscle (origin)
Iliopsoas muscle (insertion)
Pectineus muscle (tendon of insertion)
Adductor brevis muscle (tendon of insertion)
Adductor longus muscle (tendon of insertion)
Adductor magnus muscle¹ (insertion)
Vastus internus muscle
M. vastus medialis
Opening in the adductor magnus muscle through which the femoral vessels pass into the popliteal space, forming the inferior orifice of Hunter's canal
Hiatus adductorius
Popliteal surface
Planum popliteum
Internal intermuscular septum (tendon of the adductor magnus muscle)
Septum intermusculare mediale
Inner head of the gastrocnemius muscle
Tendon of the semimembranosus muscle
Posterior ligament of the knee-joint
Lig. popliteum obliquum
Common tendon of origin for the semitendinosus muscle and the long head of the biceps flexor cruris muscle
Tendon of origin of the semimembranosus muscle
Quadratus femoris muscle (origin)
Gluteus medius muscle
M. glutæus medius
Gluteus maximus muscle (divided and turned outwards)
M. glutæus maximus
Obturator externus muscle
Great trochanter
Trochanter major
Quadratus femoris muscle (insertion)
Small trochanter
Trochanter minor
Adductor minimus muscle¹ (tendon of insertion)
Tendinous insertion of the gluteus maximus muscle into the gluteal ridge
Partial insertion of the gluteus maximus muscle into the fascia lata
Deep fascia of the thigh, or fascia lata
Vastus externus muscle
M. vastus lateralis
Short head of the biceps flexor cruris muscle (origin)
Linea aspera of the femur
Linea aspera femoris
¹/₃
External intermuscular septum
Septum intermusculare laterale
Plantaris muscle
Tendon of insertion of the biceps flexor cruris muscle
Outer head of the gastrocnemius muscle
Head of the fibula
Capitulum fibulæ
Popliteus muscle
Soleus muscle
M. soleus

---

[1] See note [2] to p. 345.

FIG. 609.—ATTACHMENT OF MUSCLES (ORIGINS AND INSERTIONS) TO THE OUTER ASPECT OF THE HIP-BONE AND TO THE POSTERIOR ASPECT OF THE FEMUR. RIGHT SIDE, SEEN FROM BEHIND.

Musculi femoris—Muscles of the thigh.

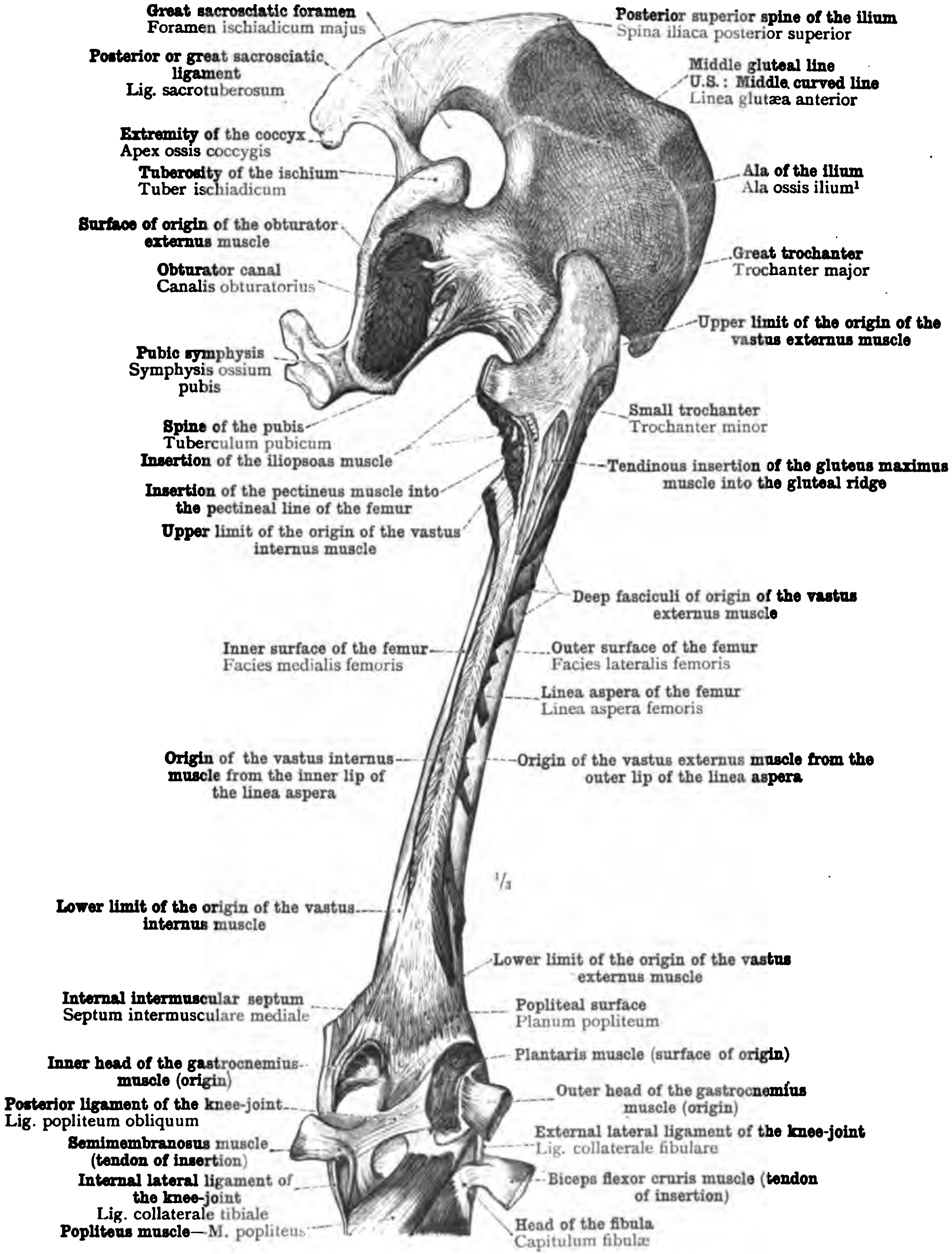
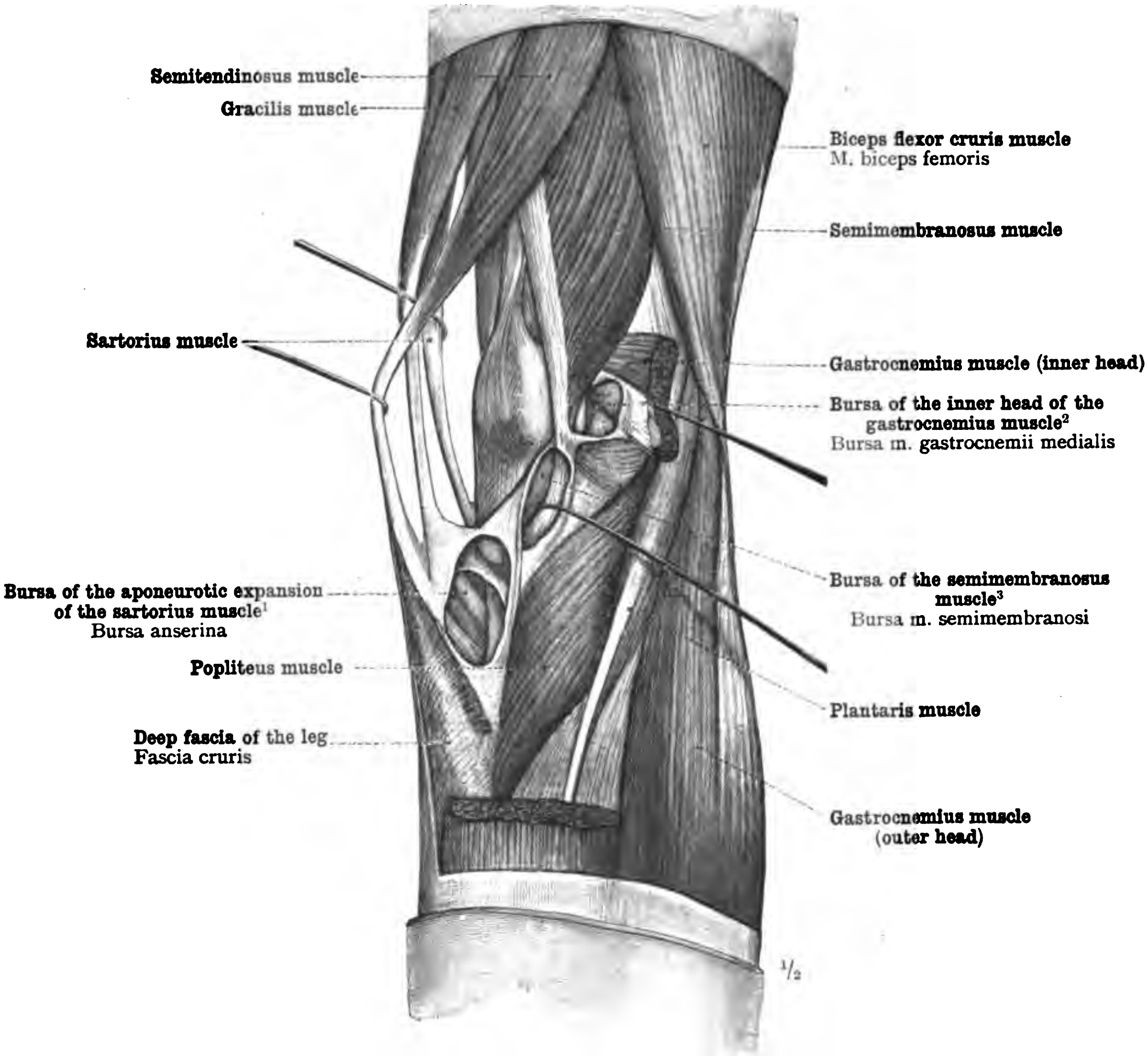

Great sacrosciatic foramen
Foramen ischiadicum majus
Posterior or great sacrosciatic ligament
Lig. sacrotuberosum
Extremity of the coccyx
Apex ossis coccygis
Tuberosity of the ischium
Tuber ischiadicum
Surface of origin of the obturator externus muscle
Obturator canal
Canalis obturatorius
Pubic symphysis
Symphysis ossium pubis
Spine of the pubis
Tuberculum pubicum
Insertion of the iliopsoas muscle
Insertion of the pectineus muscle into the pectineal line of the femur
Upper limit of the origin of the vastus internus muscle
Inner surface of the femur
Facies medialis femoris
Origin of the vastus internus muscle from the inner lip of the linea aspera
Lower limit of the origin of the vastus internus muscle
Internal intermuscular septum
Septum intermusculare mediale
Inner head of the gastrocnemius muscle (origin)
Posterior ligament of the knee-joint
Lig. popliteum obliquum
Semimembranosus muscle (tendon of insertion)
Internal lateral ligament of the knee-joint
Lig. collaterale tibiale
Popliteus muscle—M. popliteus
Posterior superior spine of the ilium
Spina iliaca posterior superior
Middle gluteal line
U.S.: Middle curved line
Linea glutæa anterior
Ala of the ilium
Ala ossis ilium[1]
Great trochanter
Trochanter major
Upper limit of the origin of the vastus externus muscle
Small trochanter
Trochanter minor
Tendinous insertion of the gluteus maximus muscle into the gluteal ridge
Deep fasciculi of origin of the vastus externus muscle
Outer surface of the femur
Facies lateralis femoris
Linea aspera of the femur
Linea aspera femoris
Origin of the vastus externus muscle from the outer lip of the linea aspera
1/3
Lower limit of the origin of the vastus externus muscle
Popliteal surface
Planum popliteum
Plantaris muscle (surface of origin)
Outer head of the gastrocnemius muscle (origin)
External lateral ligament of the knee-joint
Lig. collaterale fibulare
Biceps flexor cruris muscle (tendon of insertion)
Head of the fibula
Capitulum fibulæ

FIG. 610.—ATTACHMENT OF MUSCLES (ORIGINS AND INSERTIONS) TO THE POSTERIOR ASPECT OF THE RIGHT FEMUR.

Musculi femoris—Muscles of the thigh.

---

[1] The author treats *ilium* as an indeclinable noun, and I have followed him here, as in the section on Osteology, in writing *ala ossis ilium* instead of *ala ossis ilii*. English anatomists, however, when using Latin terminology, generally decline *ilium*, speaking of *dorsum ilii*, etc.—TR.


Semitendinosus muscle
Gracilis muscle
Biceps flexor cruris muscle
M. biceps femoris
Semimembranosus muscle
Sartorius muscle
Gastrocnemius muscle (inner head)
Bursa of the inner head of the gastrocnemius muscle[2]
Bursa m. gastrocnemii medialis
Bursa of the semimembranosus muscle[3]
Bursa m. semimembranosi
Bursa of the aponeurotic expansion of the sartorius muscle[1]
Bursa anserina
Popliteus muscle
Plantaris muscle
Deep fascia of the leg
Fascia cruris
Gastrocnemius muscle (outer head)
1/2

[1] The ***bursa of the aponeurotic expansion of the sartorius muscle*** (called by the author ***bursa anserina***) is situate between the root of the aponeurotic expansion of the tendon of insertion of the sartorius muscle (***pes anserinus***, according to Toldt, see Fig. 600, p. 351, and note [1] on same page) and the subjacent tendons of insertion of the gracilis and semitendinosus muscles. A prolongation of the bursa passes more deeply between these latter tendons and the subjacent internal lateral ligament of the knee-joint.—Tr.

[2] The ***bursa of the inner head of the gastrocnemius muscle*** is situate between the inner head of origin of the gastrocnemius muscle and the tendon of the semimembranosus muscle. This bursa frequently communicates with the knee-joint. Higher up, between the tendon of the inner head of the gastrocnemius muscle and the femur, there is usually a second, smaller synovial bursa, which may also communicate with the knee-joint.—Tr.

[3] The ***bursa of the semimembranosus muscle*** is situate between the tendon of insertion of the semimembranosus muscle and the prominent upper margin of the groove on the internal tuberosity of the tibia into which the semimembranosus muscle is mainly inserted.—Tr.

FIG. 611.—REGION OF THE KNEE, SEEN OBLIQUELY FROM BEHIND AND WITHIN. RIGHT LIMB. BURSÆ (SUBTENDINOUS MUCOUS BURSÆ) IN THE INNER PART OF THE POSTERIOR REGION OF THE KNEE, AS SEEN AFTER DIVISION OF THE INNER HEAD OF THE GASTROCNEMIUS MUSCLE: BURSA OF THE INNER HEAD OF THE GASTROCNEMIUS MUSCLE, BURSA OF THE SEMIMEMBRANOSUS MUSCLE, BURSA OF THE APONEUROTIC EXPANSION OF THE SARTORIUS MUSCLE (BURSA ANSERINA).

Bursæ mucosæ regionis genu posterioris—Bursæ of the posterior region of the knee.

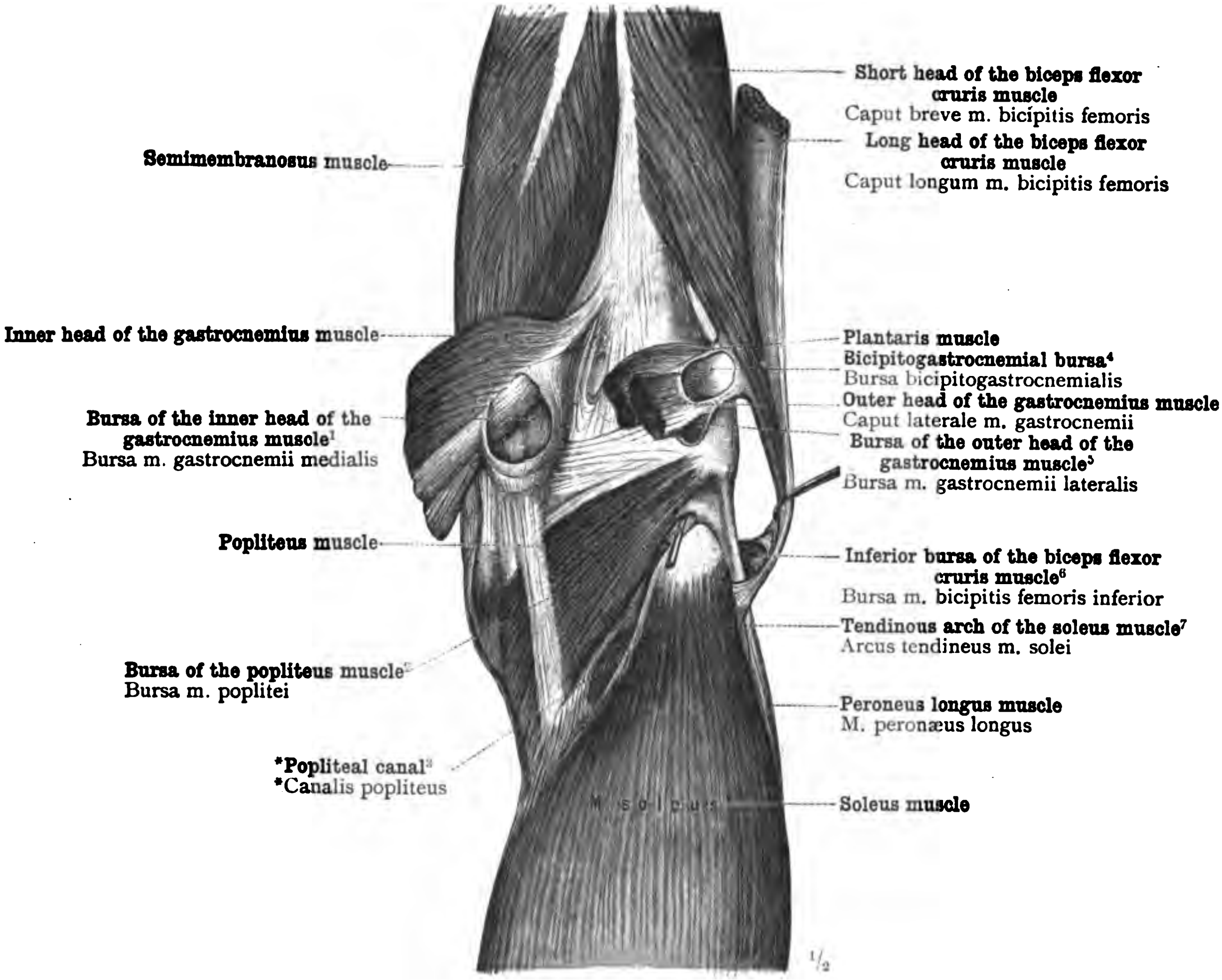

Short head of the biceps flexor cruris muscle
Caput breve m. bicipitis femoris
Long head of the biceps flexor cruris muscle
Caput longum m. bicipitis femoris
Semimembranosus muscle
Inner head of the gastrocnemius muscle
Plantaris muscle
Bicipitogastrocnemial bursa[4]
Bursa bicipitogastrocnemialis
Outer head of the gastrocnemius muscle
Caput laterale m. gastrocnemii
Bursa of the inner head of the gastrocnemius muscle[1]
Bursa m. gastrocnemii medialis
Bursa of the outer head of the gastrocnemius muscle[5]
Bursa m. gastrocnemii lateralis
Popliteus muscle
Inferior bursa of the biceps flexor cruris muscle[6]
Bursa m. bicipitis femoris inferior
Tendinous arch of the soleus muscle[7]
Arcus tendineus m. solei
Bursa of the popliteus muscle[2]
Bursa m. poplitei
Peroneus longus muscle
M. peronæus longus
*Popliteal canal[3]
*Canalis popliteus
Soleus muscle
M. soleus
1/2

FIG. 612.—REGION OF THE KNEE, SEEN FROM BEHIND. RIGHT LIMB. BURSÆ (SUBTENDINOUS MUCOUS BURSÆ) IN THE OUTER PART OF THE POSTERIOR REGION OF THE KNEE, AS SEEN AFTER REMOVAL OF BOTH HEADS OF THE GASTROCNEMIUS MUSCLE AND OF THE PLANTARIS MUSCLE: BICIPITOGASTROCNEMIAL BURSA, BURSA OF THE OUTER HEAD OF THE GASTROCNEMIUS MUSCLE, INFERIOR BURSA OF THE BICEPS FLEXOR CRURIS MUSCLE, BURSA OF THE POPLITEUS MUSCLE, BURSA OF THE INNER HEAD OF THE GASTROCNEMIUS MUSCLE. TENDINOUS ARCH OF THE SOLEUS MUSCLE, AND BENEATH IT (ANTERIORLY) THE ENTRANCE TO THE *POPLITEAL CANAL.

Bursæ mucosæ regionis genu posterioris—Bursæ of the posterior region of the knee.

---

[1] See note [2] to p. 362.

[2] The *bursa of the popliteus muscle* (so-called) is an expansion of the synovial cavity of the knee-joint passing downwards between the tendon of origin of the popliteus muscle and the back of the outer tuberosity of the tibia.—TR.

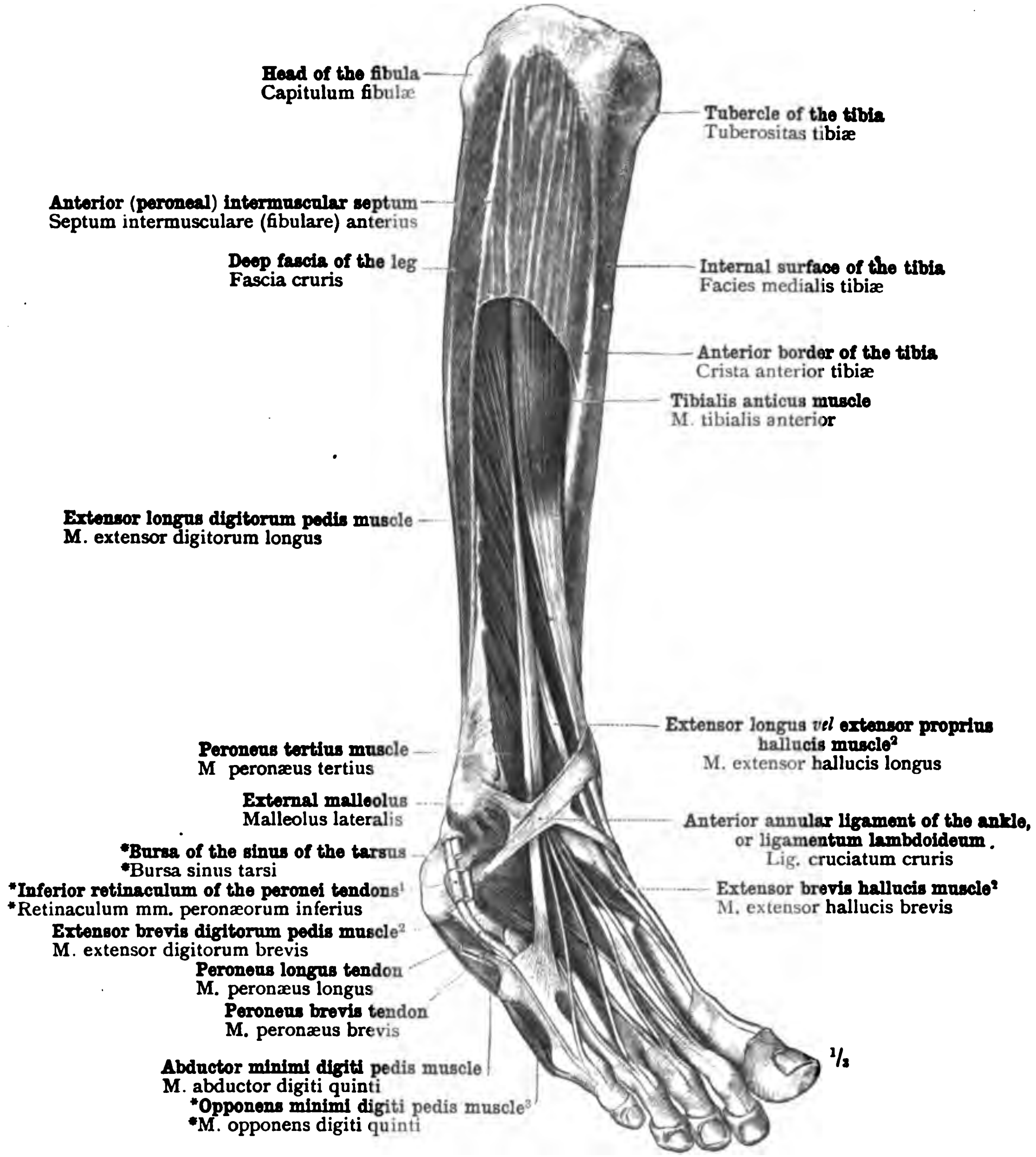
[3] **Popliteal Canal.*—This name is not used by English anatomists. It is given by the author to the space beneath (anterior to) the tendinous arch of the soleus muscle (see note 7 on this page) through which the posterior tibial vessels and nerve pass from the popliteal space beneath the soleus muscle.—TR.

[4] The *bicipitogastrocnemial bursa* is situate between the biceps flexor cruris muscle and the outer head of the gastrocnemius muscle.—TR.

[5] The *bursa of the outer head of the gastrocnemius muscle* is situated beneath the tendon of origin of the outer head of the gastrocnemius muscle, between that tendon and the femur.—TR.

[6] The *inferior bursa of the biceps flexor cruris muscle* is situate between the tendon of insertion of that muscle and the external lateral ligament of the knee-joint.—TR.

[7] The *tendinous arch of the soleus muscle*, passing from the upper part of the back of the fibula obliquely downwards and inwards to the upper part of the back of the tibia, arches over the tibial vessels and nerve, and serves for the origin of the middle fibres of the soleus muscle.—TR.


Head of the fibula
Capitulum fibulæ
Tubercle of the tibia
Tuberositas tibiæ
Anterior (peroneal) intermuscular septum
Septum intermusculare (fibulare) anterius
Deep fascia of the leg
Fascia cruris
Internal surface of the tibia
Facies medialis tibiæ
Anterior border of the tibia
Crista anterior tibiæ
Tibialis anticus muscle
M. tibialis anterior
Extensor longus digitorum pedis muscle
M. extensor digitorum longus
Extensor longus *vel* extensor proprius hallucis muscle[2]
M. extensor hallucis longus
Peroneus tertius muscle
M peronæus tertius
External malleolus
Malleolus lateralis
Anterior annular ligament of the ankle, or ligamentum lambdoideum.
Lig. cruciatum cruris
***Bursa of the sinus of the tarsus**
*Bursa sinus tarsi
***Inferior retinaculum of the peronei tendons**[1]
*Retinaculum mm. peronæorum inferius
Extensor brevis hallucis muscle[2]
M. extensor hallucis brevis
Extensor brevis digitorum pedis muscle[2]
M. extensor digitorum brevis
Peroneus longus tendon
M. peronæus longus
Peroneus brevis tendon
M. peronæus brevis
1/2
Abductor minimi digiti pedis muscle
M. abductor digiti quinti
***Opponens minimi digiti pedis muscle**[3]
*M. opponens digiti quinti

[1] Immediately behind and below the external malleolus the tendons of the peroneus longus and brevis muscles are contained in a single synovial sheath, the fibrous strand which binds them down, passing from the point of the outer malleolus to the outer side of the calcaneum, being called by the author *retinaculum mm. peronæorum superius* (see Fig. 615, p. 366), and by English anatomists *the external annular ligament of the ankle.* More distally, on the outer side of the calcaneum, each tendon has its own sheath, the two being separated by a fibrous septum and by the trochlear process or peroneal spine of the calcaneum, when that process exists. The fibrous band which binds the two tendons to the calcaneum has received no special name from English anatomists, but is called by the author *retinaculum mm. peronæorum inferius* (see Fig. 613, *supra*, Fig. 615, p. 366, and Fig. 621, p. 372).—Tr.

[2] By many English anatomists the *extensor brevis hallucis* muscle is regarded, not as an independent muscle, but merely as the innermost slip of the *extensor brevis digitorum pedis* muscle, and under these circumstances the *extensor longus hallucis* muscle is termed *extensor proprius* hallucis.—Tr.

[3] The name *opponens minimi digiti* (*pedis*) is sometimes given to that portion of the *flexor brevis minimi digiti pedis* muscle which is inserted into the fifth metatarsal bone (the bulk of the muscle being inserted into the base and external border of the proximal phalanx. Occasionally (3·5 per cent.) this portion of the muscle is entirely separate from the rest; while somewhat more frequently (10 per cent.) the insertion of the flexor brevis minimi digiti into the metatarsal bone is entirely wanting.—Tr.

FIG. 613.—MUSCLES ON THE FRONT OF THE RIGHT LEG: TIBIALIS ANTICUS MUSCLE; EXTENSOR LONGUS DIGITORUM PEDIS MUSCLE, WITH THE PERONEUS TERTIUS MUSCLE; EXTENSOR LONGUS *VEL* EXTENSOR PROPRIUS HALLUCIS MUSCLE (*see note* [2] *above*). ANTERIOR (PERONEAL) INTERMUSCULAR SEPTUM. EXTENSOR BREVIS DIGITORUM MUSCLE (*see note* [2] *above*). BURSA OF THE SINUS OF THE TARSUS.

That portion of the deep fascia of the leg from which numerous fasciculi of the two first-named muscles arise has been retained, also that portion which covers the peronei muscles on the outer side of the leg, and the anterior annular ligament of the ankle (ligamentum lambdoideum, ligamentum cruciatum cruris).

Musculi cruris—Muscles of the leg.

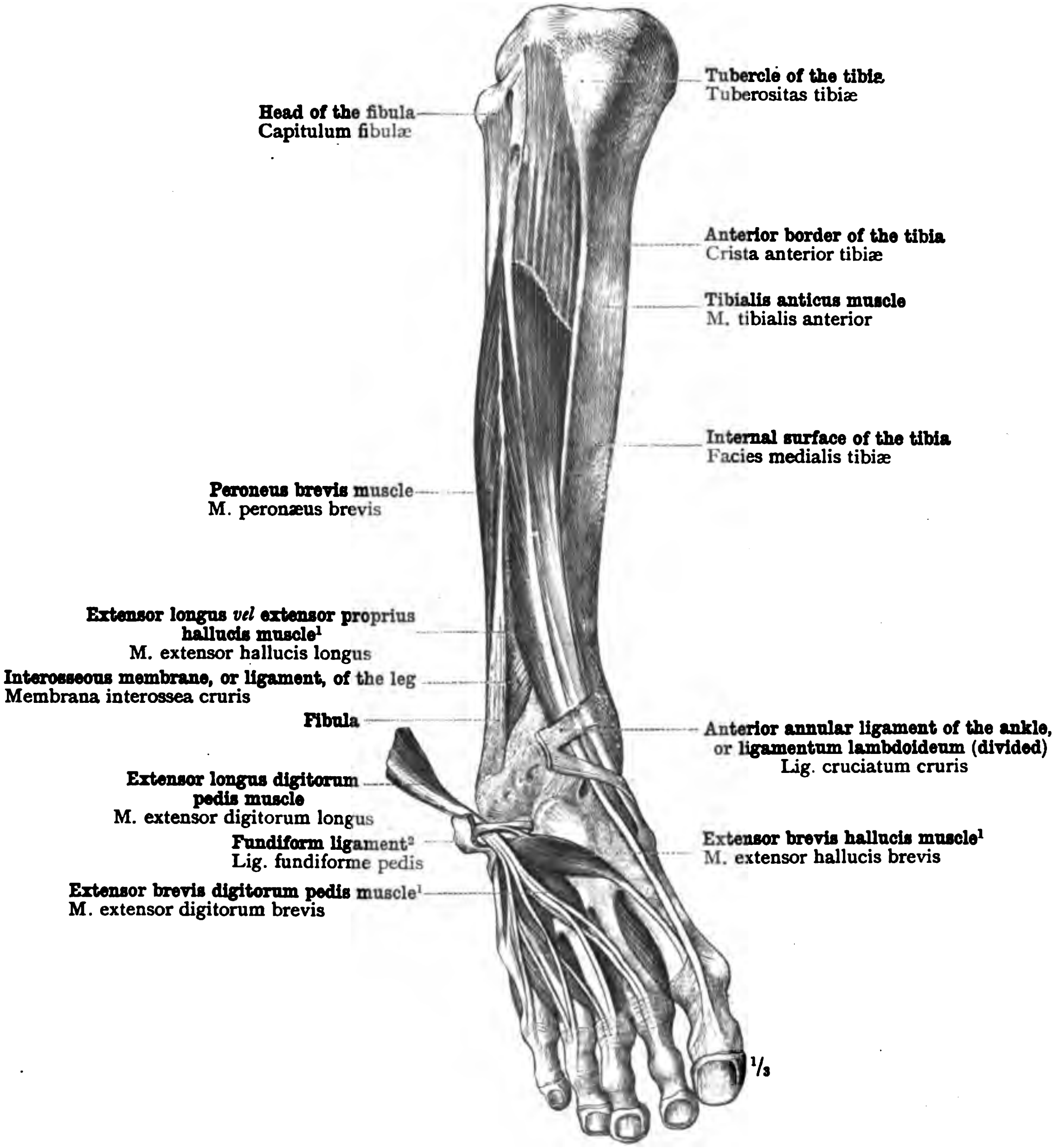

Head of the fibula
Capitulum fibulæ
Tubercle of the tibia
Tuberositas tibiæ
Anterior border of the tibia
Crista anterior tibiæ
Tibialis anticus muscle
M. tibialis anterior
Internal surface of the tibia
Facies medialis tibiæ
Peroneus brevis muscle
M. peronæus brevis
Extensor longus vel extensor proprius hallucis muscle[1]
M. extensor hallucis longus
Interosseous membrane, or ligament, of the leg
Membrana interossea cruris
Fibula
Anterior annular ligament of the ankle, or ligamentum lambdoideum (divided)
Lig. cruciatum cruris
Extensor longus digitorum pedis muscle
M. extensor digitorum longus
Fundiform ligament[2]
Lig. fundiforme pedis
Extensor brevis hallucis muscle[1]
M. extensor hallucis brevis
Extensor brevis digitorum pedis muscle[1]
M. extensor digitorum brevis
1/3

FIG. 614.—MUSCLES ON THE FRONT OF THE RIGHT LEG, THE EXTENSOR LONGUS DIGITORUM PEDIS AND PERONEUS TERTIUS MUSCLES HAVING BEEN REMOVED: EXTENSOR LONGUS *VEL* EXTENSOR PROPRIUS HALLUCIS MUSCLE; TIBIALIS ANTICUS MUSCLE.

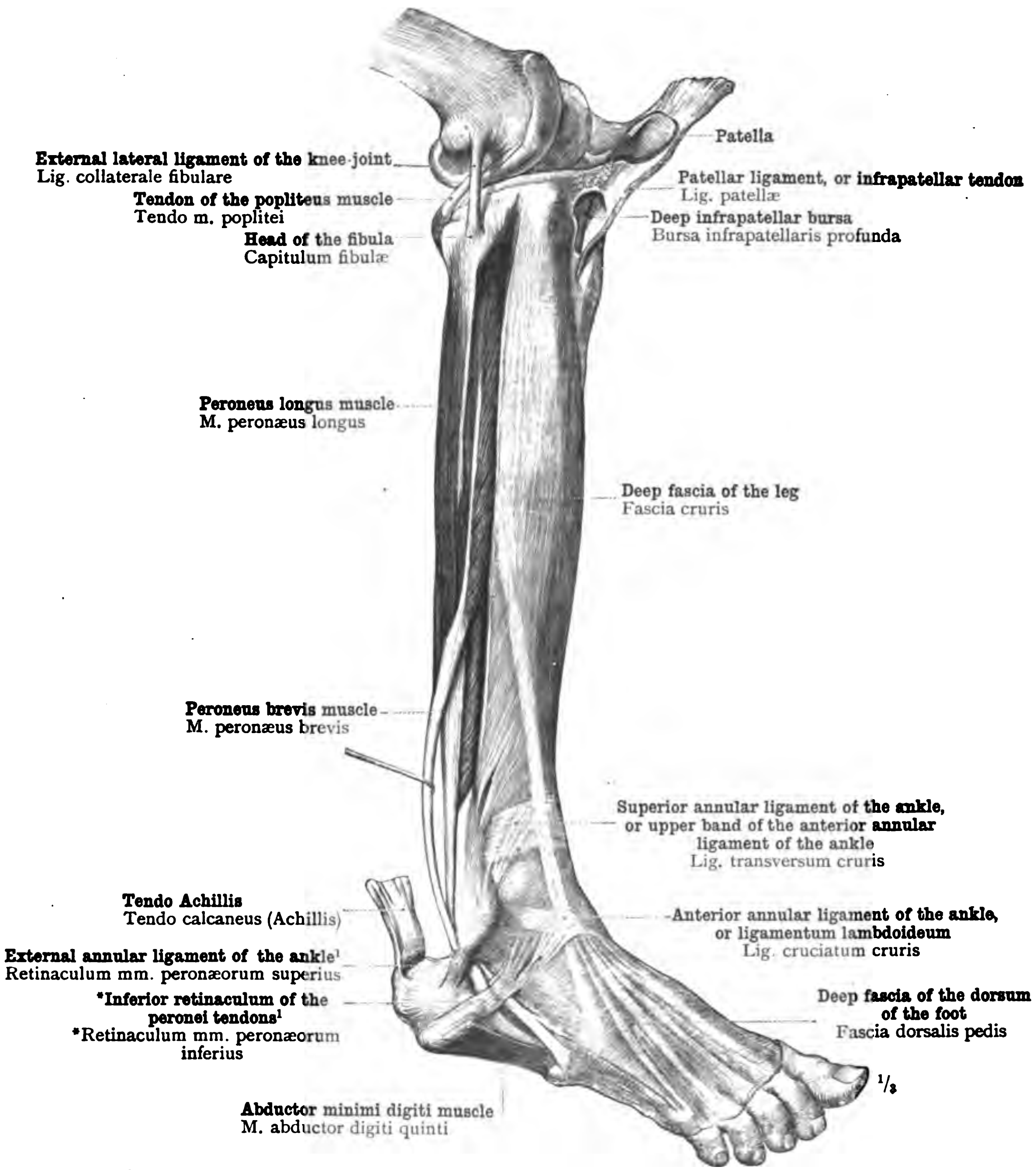
By the removal of the peroneus longus muscle, the fleshy belly of the peroneus brevis muscle has been laid bare. The anterior annular ligament of the ankle (ligamentum lambdoideum, ligamentum cruciatum cruris) has been divided between the tendons of the extensor longus digitorum pedis and the extensor longus *vel* extensor proprius hallucis muscles, and the outer portion of this ligament has been turned downwards, in order to demonstrate the loop of the fundiform ligament of Retzius (*see note* [2] *above*) surrounding the tendons of the extensor longus digitorum pedis and peroneus tertius muscles.

Musculi cruris—Muscles of the leg.

---

[1] See note [2] to p. 364.

[2] The *fundiform ligament* of Retzius is the name given to the single outer half of the <-shaped lower band of the anterior annular ligament of the ankle; attached externally to the calcaneum, it projects upwards and inwards, forming a loop through which the tendons of the extensor longus digitorum pedis and peroneus tertius muscles pass from the front of the leg to the dorsum of the foot.—TR.


External lateral ligament of the knee-joint
Lig. collaterale fibulare
Tendon of the popliteus muscle
Tendo m. poplitei
Head of the fibula
Capitulum fibulæ
Peroneus longus muscle
M. peronæus longus
Peroneus brevis muscle
M. peronæus brevis
Tendo Achillis
Tendo calcaneus (Achillis)
External annular ligament of the ankle[1]
Retinaculum mm. peronæorum superius
*Inferior retinaculum of the peronei tendons[1]
*Retinaculum mm. peronæorum inferius
Abductor minimi digiti muscle
M. abductor digiti quinti
Patella
Patellar ligament, or infrapatellar tendon
Lig. patellæ
Deep infrapatellar bursa
Bursa infrapatellaris profunda
Deep fascia of the leg
Fascia cruris
Superior annular ligament of the ankle, or upper band of the anterior annular ligament of the ankle
Lig. transversum cruris
Anterior annular ligament of the ankle, or ligamentum lambdoideum
Lig. cruciatum cruris
Deep fascia of the dorsum of the foot
Fascia dorsalis pedis
1/3

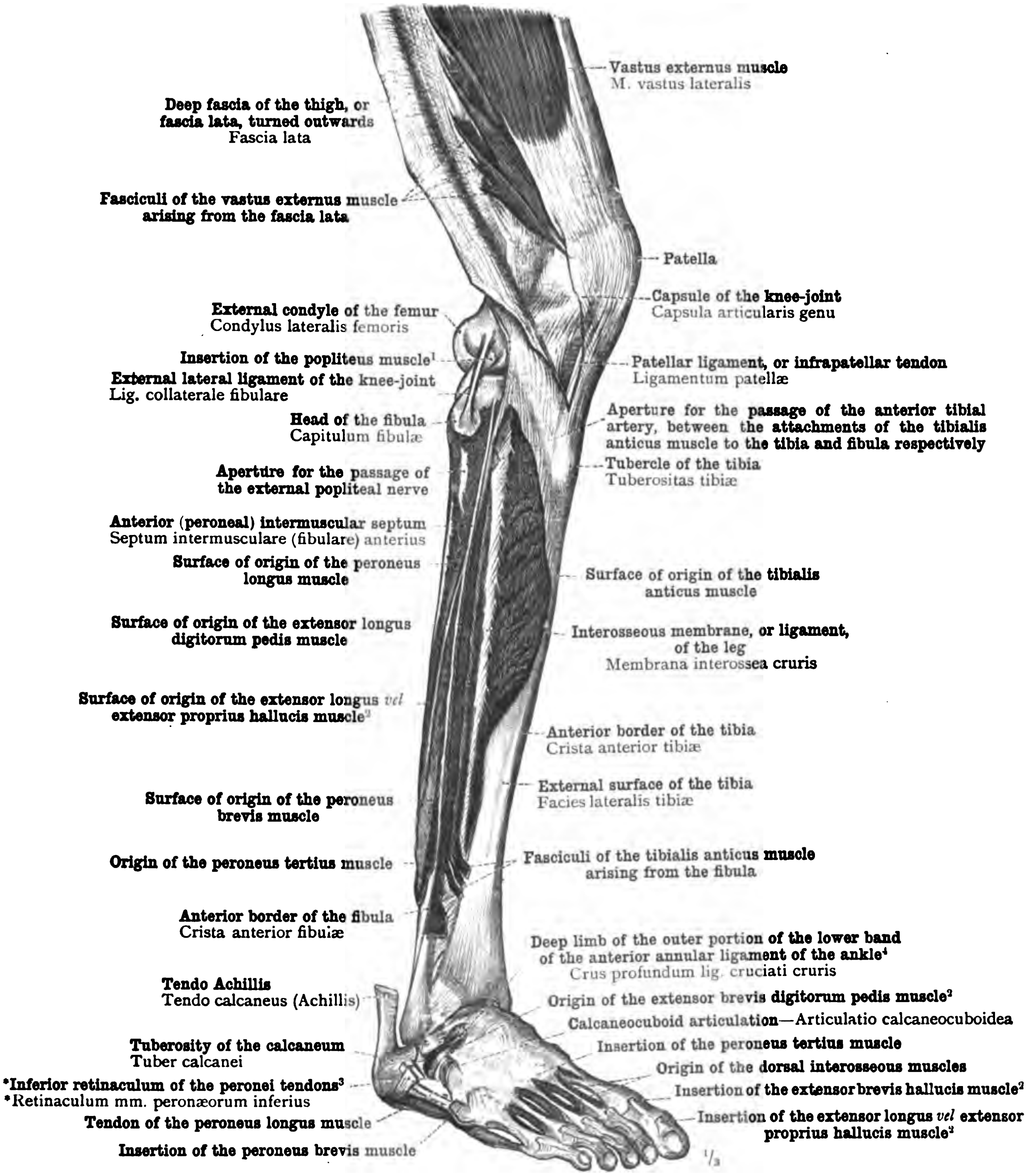
---

[1] See note [1] to p. 364.

[2] According to English anatomists, the *femoral* attachment of the popliteus is the *origin* of that muscle, and the *tibial* attachment its *insertion*.—Tr.

Fig. 615.—Muscles on the Outer Side of the Right Leg: Peroneus Longus Muscle; Peroneus Brevis Muscle. Tendon of Insertion of the Popliteus Muscle (*see note* [2] *above*). Deep Infrapatellar Bursa. Deep Fascia of the Leg and Deep Fascia of the Dorsum of the Foot. Superior Annular Ligament of the Ankle (Ligamentum Transversum Cruris) and Anterior Annular Ligament of the Ankle (Ligamentum Lambdoideum, Ligamentum Cruciatum Cruris).

Musculi cruris—Muscles of the leg.


Deep fascia of the thigh, or fascia lata, turned outwards
Fascia lata
Fasciculi of the vastus externus muscle arising from the fascia lata
External condyle of the femur
Condylus lateralis femoris
Insertion of the popliteus muscle[1]
External lateral ligament of the knee-joint
Lig. collaterale fibulare
Head of the fibula
Capitulum fibulæ
Aperture for the passage of the external popliteal nerve
Anterior (peroneal) intermuscular septum
Septum intermusculare (fibulare) anterius
Surface of origin of the peroneus longus muscle
Surface of origin of the extensor longus digitorum pedis muscle
Surface of origin of the extensor longus vel extensor proprius hallucis muscle[2]
Surface of origin of the peroneus brevis muscle
Origin of the peroneus tertius muscle
Anterior border of the fibula
Crista anterior fibulæ
Tendo Achillis
Tendo calcaneus (Achillis)
Tuberosity of the calcaneum
Tuber calcanei
*Inferior retinaculum of the peronei tendons[3]
*Retinaculum mm. peronæorum inferius
Tendon of the peroneus longus muscle
Insertion of the peroneus brevis muscle
Vastus externus muscle
M. vastus lateralis
Patella
Capsule of the knee-joint
Capsula articularis genu
Patellar ligament, or infrapatellar tendon
Ligamentum patellæ
Aperture for the passage of the anterior tibial artery, between the attachments of the tibialis anticus muscle to the tibia and fibula respectively
Tubercle of the tibia
Tuberositas tibiæ
Surface of origin of the tibialis anticus muscle
Interosseous membrane, or ligament, of the leg
Membrana interossea cruris
Anterior border of the tibia
Crista anterior tibiæ
External surface of the tibia
Facies lateralis tibiæ
Fasciculi of the tibialis anticus muscle arising from the fibula
Deep limb of the outer portion of the lower band of the anterior annular ligament of the ankle[4]
Crus profundum lig. cruciati cruris
Origin of the extensor brevis digitorum pedis muscle[3]
Calcaneocuboid articulation—Articulatio calcaneocuboidea
Insertion of the peroneus tertius muscle
Origin of the dorsal interosseous muscles
Insertion of the extensor brevis hallucis muscle[2]
Insertion of the extensor longus vel extensor proprius hallucis muscle[2]
1/3

---

[1] See note [2] to p. 366.
[2] See note [2] to p. 364.
[3] See note [1] to p. 364.
[4] This is the deep limb of the *fundiform ligament* of Retzius, the loop surrounding the tendons of the extensor longus digitorum pedis and peroneus tertius muscles (see Fig. 614, p. 365, and note [2] to same page).—Tr.

Fig. 616.—Origin of Muscles from the Front and Outer Side of the Leg and from the Dorsum of the Foot. Fasciculi of the Vastus Externus Muscle arising from the Fascia Lata.

Musculi cruris—Muscles of the leg.

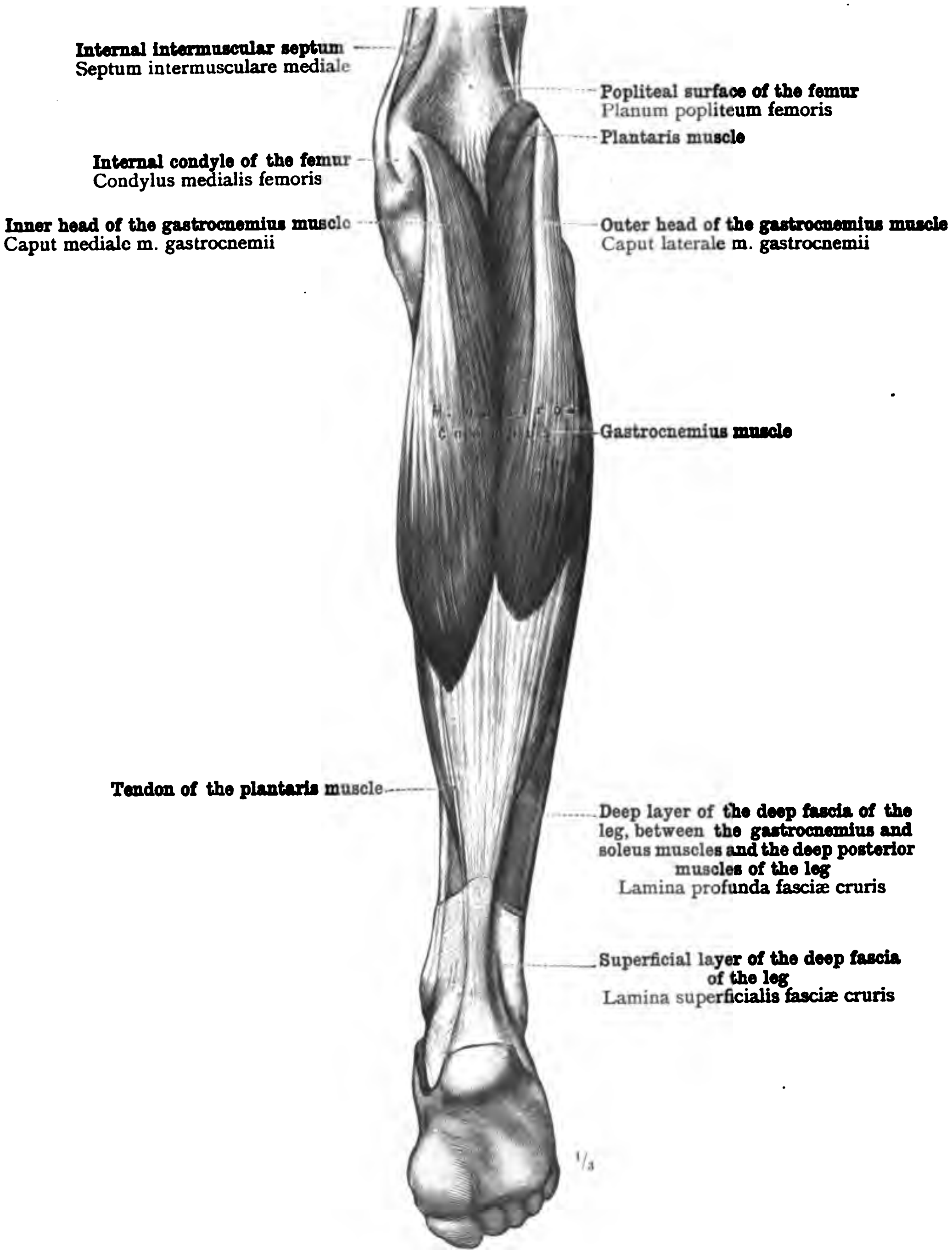

Internal intermuscular septum
Septum intermusculare mediale
Internal condyle of the femur
Condylus medialis femoris
Inner head of the gastrocnemius muscle
Caput mediale m. gastrocnemii
Popliteal surface of the femur
Planum popliteum femoris
Plantaris muscle
Outer head of the gastrocnemius muscle
Caput laterale m. gastrocnemii
Gastrocnemius muscle
Tendon of the plantaris muscle
Deep layer of the deep fascia of the leg, between the gastrocnemius and soleus muscles and the deep posterior muscles of the leg
Lamina profunda fasciæ cruris
Superficial layer of the deep fascia of the leg
Lamina superficialis fasciæ cruris
1/3

FIG. 617.—SUPERFICIAL GROUP[1] OF THE POSTERIOR MUSCLES OF THE RIGHT LEG, FIRST PORTION: GASTROCNEMIUS MUSCLE, CONSTITUTING THE TWO SUPERFICIAL HEADS OF THE *TRICEPS SURÆ MUSCLE.[2]

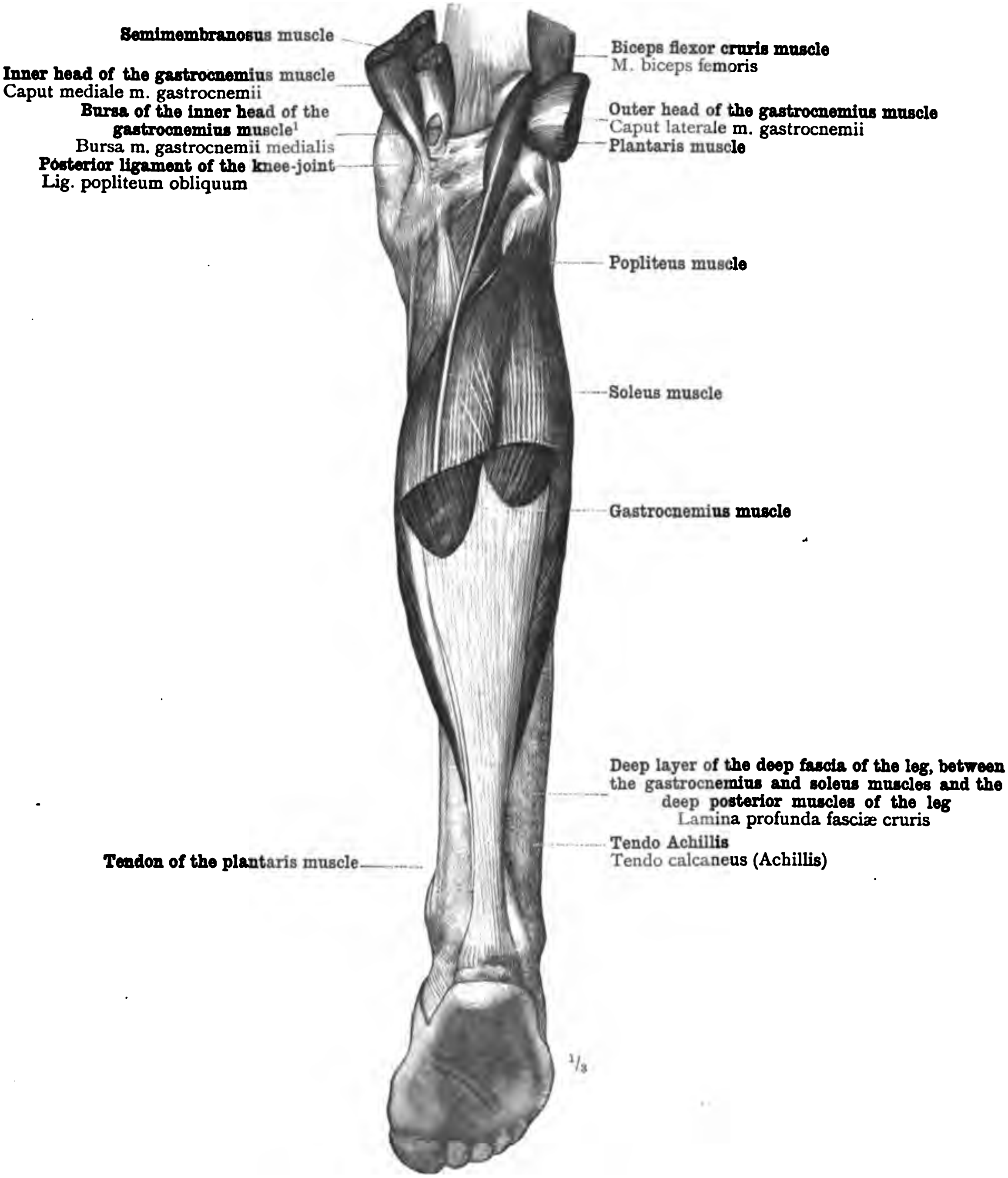
Of the deep fascia of the leg, the lower portion of the superficial layer, which binds down the tendo Achillis, and the deep layer, which passes from side to side between the superficial and the deep posterior muscles of the leg, have been retained. The plantaris muscle and its tendon are partially visible.

---

[1] The author divides the posterior muscles of the leg into three groups or layers, the first. most superficial, consisting of the gastrocnemius muscle; the second consisting of the plantaris and soleus muscles; and the third, deepest, consisting of the popliteus, flexor longus hallucis, flexor longus digitorum pedis (or flexor perforans), and tibialis posticus muscles. This arrangement appears a very artificial one, and I have therefore adhered to the arrangement usually adopted by English anatomists, according to which the muscles are grouped in two layers only: a superficial, consisting of the gastrocnemius, soleus, and plantaris muscles; and a deep, consisting of the muscles already enumerated as making up the author's third layer.—TR.

[2] *Triceps Suræ Muscle.*—This name is given by the author to the gastrocnemius and soleus, considered as a single three-headed muscle. The name is not usually employed in England.—TR.

Musculi cruris—Muscles of the leg.


Semimembranosus muscle
Inner head of the gastrocnemius muscle
Caput mediale m. gastrocnemii
Bursa of the inner head of the gastrocnemius muscle¹
Bursa m. gastrocnemii medialis
Posterior ligament of the knee-joint
Lig. popliteum obliquum
Biceps flexor cruris muscle
M. biceps femoris
Outer head of the gastrocnemius muscle
Caput laterale m. gastrocnemii
Plantaris muscle
Popliteus muscle
Soleus muscle
Gastrocnemius muscle
Deep layer of the deep fascia of the leg, between the gastrocnemius and soleus muscles and the deep posterior muscles of the leg
Lamina profunda fasciæ cruris
Tendo Achillis
Tendo calcaneus (Achillis)
Tendon of the plantaris muscle
1/3

[1] See note [2] to p. 362.

Fig. 618.—Superficial Group of the Posterior Muscles of the Right Leg, Second Portion (*see note* [1] *to p.* 368), as seen after the Removal of the Two Superficial Heads of the *Triceps Suræ Muscle (*i.e.*, the Upper Part of the Gastrocnemius Muscle): Soleus Muscle; Plantaris Muscle. Tendo Achillis, the Common Tendon of the Three Heads of the *Triceps Suræ Muscle (*i.e.*, the Tendon formed by the Union of the Flat Tendons of the Gastrocnemius and Soleus Muscles). Of the Deep Group of Posterior Muscles of the Leg, the Popliteus Muscle is partly visible. Deep Layer of the Deep Fascia of the Leg, which passes from Side to Side between the Superficial and the Deep Posterior Muscles of the Leg.

Musculi cruris—Muscles of the leg

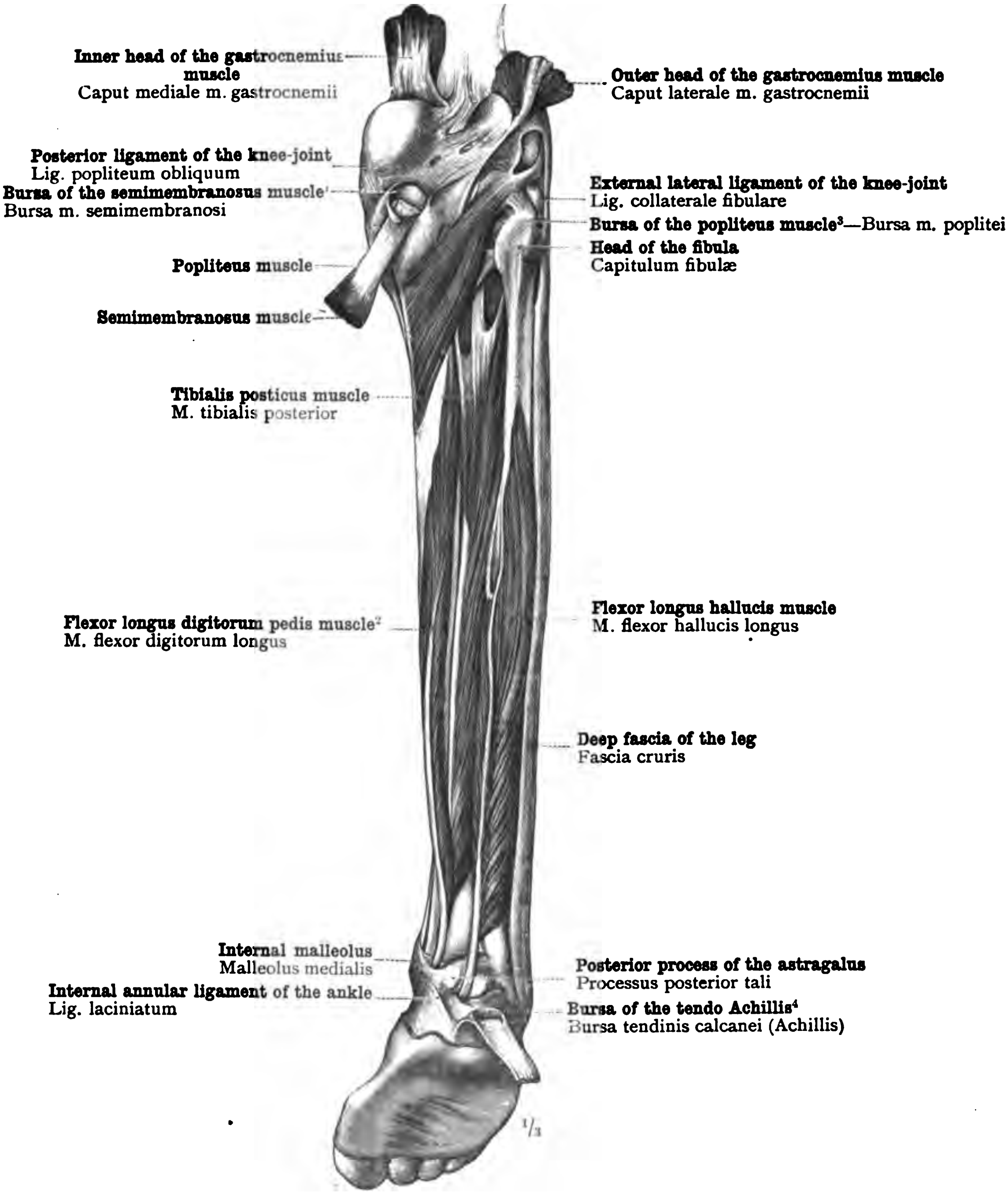

Inner head of the gastrocnemius muscle
Caput mediale m. gastrocnemii
Outer head of the gastrocnemius muscle
Caput laterale m. gastrocnemii
Posterior ligament of the knee-joint
Lig. popliteum obliquum
Bursa of the semimembranosus muscle[1]
Bursa m. semimembranosi
External lateral ligament of the knee-joint
Lig. collaterale fibulare
Bursa of the popliteus muscle[3]—Bursa m. poplitei
Head of the fibula
Capitulum fibulæ
Popliteus muscle
Semimembranosus muscle
Tibialis posticus muscle
M. tibialis posterior
Flexor longus digitorum pedis muscle[2]
M. flexor digitorum longus
Flexor longus hallucis muscle
M. flexor hallucis longus
Deep fascia of the leg
Fascia cruris
Internal malleolus
Malleolus medialis
Posterior process of the astragalus
Processus posterior tali
Internal annular ligament of the ankle
Lig. laciniatum
Bursa of the tendo Achillis[4]
Bursa tendinis calcanei (Achillis)
1/3

FIG. 619.—DEEP GROUP OF THE POSTERIOR MUSCLES OF THE RIGHT LEG (*see note* [1] *to p.* 368), AS SEEN AFTER THE REMOVAL OF ALL THREE HEADS OF THE *TRICEPS SURÆ MUSCLE (THAT IS, OF THE GASTROCNEMIUS AND SOLEUS MUSCLE), THE PLANTARIS MUSCLE, AND THE DEEP LAYER OF THE DEEP FASCIA OF THE LEG, WHICH COVERS THE DEEP MUSCLES BENEATH THE GASTROCNEMIUS AND SOLEUS MUSCLES: FLEXOR LONGUS HALLUCIS MUSCLE; TIBIALIS POSTICUS MUSCLE; FLEXOR LONGUS DIGITORUM PEDIS MUSCLE (*see note* [2] *above*); POPLITEUS MUSCLE. BURSA OF THE TENDO ACHILLIS, BURSA OF THE POPLITEUS MUSCLE, BURSA OF THE SEMIMEMBRANOSUS MUSCLE.

In the region of the peronei muscles the deep fascia of the leg, with the posterior (peroneal) intermuscular septum, has been retained.

Musculi cruris—Muscles of the leg.

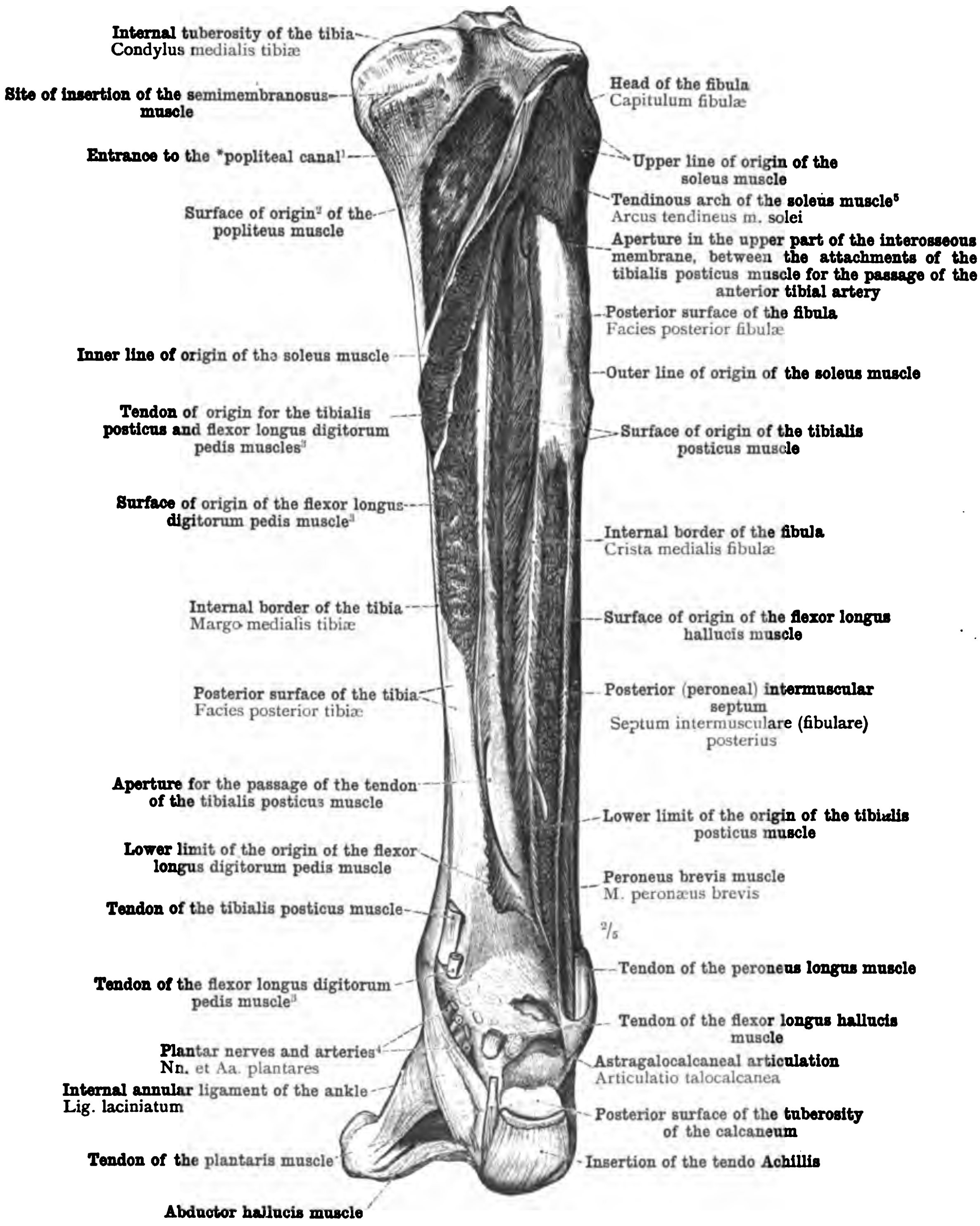
---

[1] See note 3 to p. 362.

[2] Or *flexor perforans* muscle.

[3] See note [2] to p. 363.

[4] The *bursa of the tendo Achillis* is situate between that tendon and the upper part of the tuberosity of the calcaneum.—TR.

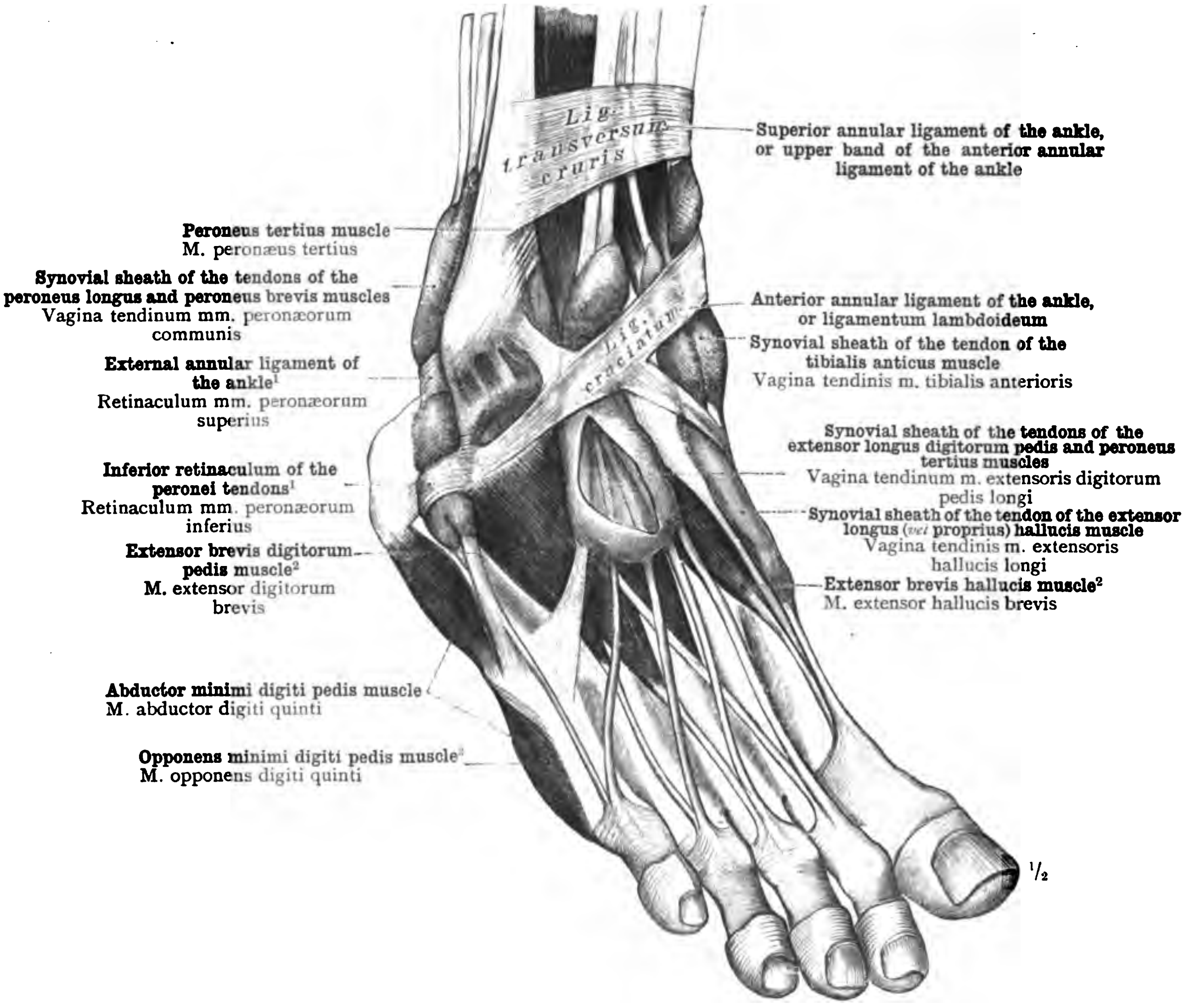

Internal tuberosity of the tibia
Condylus medialis tibiæ
Site of insertion of the semimembranosus muscle
Entrance to the "popliteal canal"[1]
Surface of origin[2] of the popliteus muscle
Inner line of origin of the soleus muscle
Tendon of origin for the tibialis posticus and flexor longus digitorum pedis muscles[3]
Surface of origin of the flexor longus digitorum pedis muscle[3]
Internal border of the tibia
Margo medialis tibiæ
Posterior surface of the tibia
Facies posterior tibiæ
Aperture for the passage of the tendon of the tibialis posticus muscle
Lower limit of the origin of the flexor longus digitorum pedis muscle
Tendon of the tibialis posticus muscle
Tendon of the flexor longus digitorum pedis muscle[3]
Plantar nerves and arteries[4]
Nn. et Aa. plantares
Internal annular ligament of the ankle
Lig. laciniatum
Tendon of the plantaris muscle
Abductor hallucis muscle
Head of the fibula
Capitulum fibulæ
Upper line of origin of the soleus muscle
Tendinous arch of the soleus muscle[5]
Arcus tendineus m. solei
Aperture in the upper part of the interosseous membrane, between the attachments of the tibialis posticus muscle for the passage of the anterior tibial artery
Posterior surface of the fibula
Facies posterior fibulæ
Outer line of origin of the soleus muscle
Surface of origin of the tibialis posticus muscle
Internal border of the fibula
Crista medialis fibulæ
Surface of origin of the flexor longus hallucis muscle
Posterior (peroneal) intermuscular septum
Septum intermusculare (fibulare) posterius
Lower limit of the origin of the tibialis posticus muscle
Peroneus brevis muscle
M. peronæus brevis
2/5
Tendon of the peroneus longus muscle
Tendon of the flexor longus hallucis muscle
Astragalocalcaneal articulation
Articulatio talocalcanea
Posterior surface of the tuberosity of the calcaneum
Insertion of the tendo Achillis

---

[1] See note 3 to p. 363.
[2] See note 2 to p. 366.
[3] Or *flexor perforans* muscle.
[4] It is unusual for the posterior tibial nerve and artery to divide into the external and internal plantar until they have passed beneath the internal annular ligament of the ankle.—Tr.
[5] See note 7 to p. 363.

FIG. 620.—SURFACES OF ORIGIN OF THE POSTERIOR MUSCLES OF THE LEG.

Musculi cruris—Muscles of the leg.


Lig. transversum cruris
Superior annular ligament of the ankle, or upper band of the anterior annular ligament of the ankle
Peroneus tertius muscle
M. peronæus tertius
Synovial sheath of the tendons of the peroneus longus and peroneus brevis muscles
Vagina tendinum mm. peronæorum communis
Anterior annular ligament of the ankle, or ligamentum lambdoideum
Lig. cruciatum
Synovial sheath of the tendon of the tibialis anticus muscle
Vagina tendinis m. tibialis anterioris
External annular ligament of the ankle[1]
Retinaculum mm. peronæorum superius
Synovial sheath of the tendons of the extensor longus digitorum pedis and peroneus tertius muscles
Vagina tendinum m. extensoris digitorum pedis longi
Inferior retinaculum of the peronei tendons[1]
Retinaculum mm. peronæorum inferius
Synovial sheath of the tendon of the extensor longus (vel proprius) hallucis muscle
Vagina tendinis m. extensoris hallucis longi
Extensor brevis digitorum pedis muscle[2]
M. extensor digitorum brevis
Extensor brevis hallucis muscle[2]
M. extensor hallucis brevis
Abductor minimi digiti pedis muscle
M. abductor digiti quinti
Opponens minimi digiti pedis muscle[3]
M. opponens digiti quinti
1/2

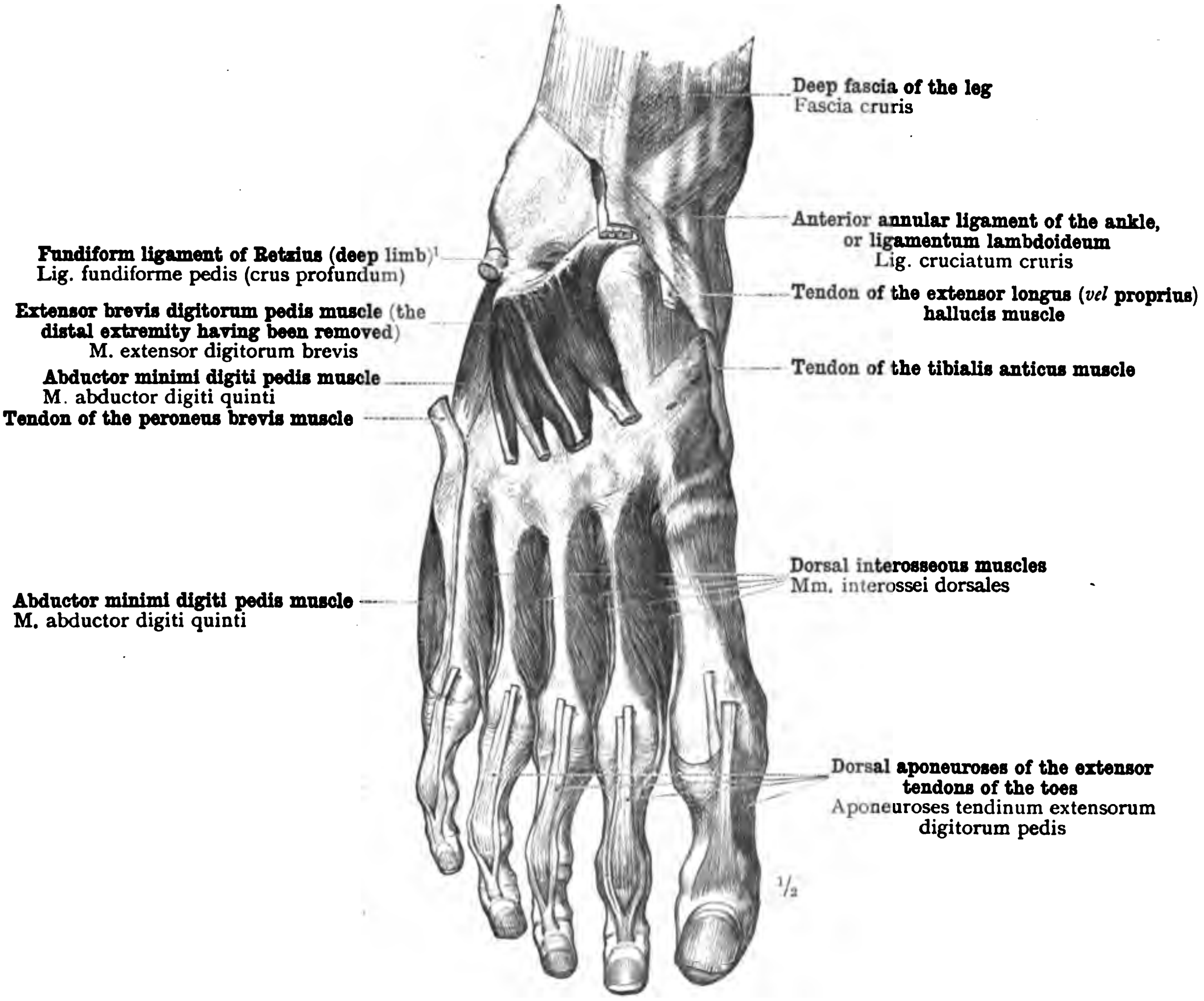
[1] See note [1] to p. 364.

[2] See note [2] to p. 364.

[3] See note [3] to p. 364.

Fig. 621.—Muscles of the Dorsum and of the Outer Border of the Foot: Extensor Brevis Digitorum Muscle (*see note* [2] *to p.* 364); Extensor Brevis Hallucis Muscle (*see note* [2] *to p.* 364); Abductor Minimi Digiti Pedis Muscle; Opponens Minimi Digiti Pedis Muscle (*see note* [3] *to p.* 364). Synovial Sheaths of the Tendons on the Dorsum of the Foot and in the External Retromalleolar Region, as seen after Injection with Strong Alcohol. Retinacula Tendinum Musculorum Perinæorum, Superius et Inferius (External Annular Ligament of the Ankle and Inferior Retinaculum of the Peronei Tendons—*see note* [1] *to p.* 364). Right Foot.

Musculi pedis—Muscles of the foot.


Deep fascia of the leg
Fascia cruris
Anterior annular ligament of the ankle, or ligamentum lambdoideum
Lig. cruciatum cruris
Tendon of the extensor longus (*vel* proprius) hallucis muscle
Tendon of the tibialis anticus muscle
Fundiform ligament of Retzius (deep limb)[1]
Lig. fundiforme pedis (crus profundum)
Extensor brevis digitorum pedis muscle (the distal extremity having been removed)
M. extensor digitorum brevis
Abductor minimi digiti pedis muscle
M. abductor digiti quinti
Tendon of the peroneus brevis muscle
Dorsal interosseous muscles
Mm. interossei dorsales
Abductor minimi digiti pedis muscle
M. abductor digiti quinti
Dorsal aponeuroses of the extensor tendons of the toes
Aponeuroses tendinum extensorum digitorum pedis
1/2

[1] See note [2] to p. 365 and note [4] to p. 367.

FIG. 622.—MUSCLES OF THE DORSUM OF THE FOOT, AFTER REMOVAL OF THE TENDONS OF THE LONG AND SHORT EXTENSORS OF THE TOES AND THE SUPERFICIAL LIMB OF THE FUNDIFORM LIGAMENT OF RETZIUS. PARTIAL ORIGIN OF THE EXTENSOR BREVIS DIGITORUM PEDIS MUSCLE FROM THE DEEP LIMB OF THE FUNDIFORM LIGAMENT OF RETZIUS. DORSAL INTEROSSEOUS MUSCLES. APONEUROTIC EXPANSIONS OF THE EXTENSOR TENDONS ON THE DORSAL SURFACE OF THE TOES. RIGHT FOOT.

Musculi pedis—Muscles of the foot.

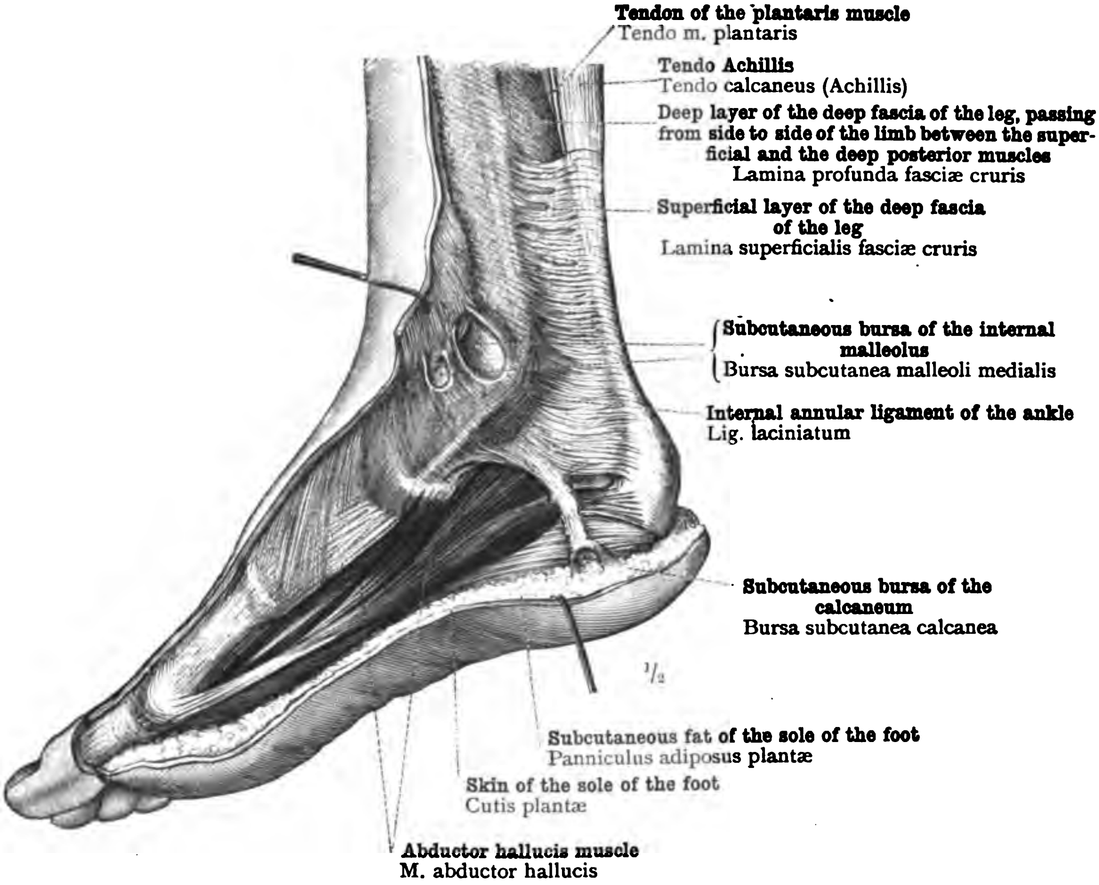

Tendon of the plantaris muscle
Tendo m. plantaris
Tendo Achillis
Tendo calcaneus (Achillis)
Deep layer of the deep fascia of the leg, passing from side to side of the limb between the superficial and the deep posterior muscles
Lamina profunda fasciæ cruris
Superficial layer of the deep fascia of the leg
Lamina superficialis fasciæ cruris
Subcutaneous bursa of the internal malleolus
Bursa subcutanea malleoli medialis
Internal annular ligament of the ankle
Lig. laciniatum
Subcutaneous bursa of the calcaneum
Bursa subcutanea calcanea
1/2
Subcutaneous fat of the sole of the foot
Panniculus adiposus plantæ
Skin of the sole of the foot
Cutis plantæ
Abductor hallucis muscle
M. abductor hallucis

Fig. 623.—Internal Malleolar and Internal Retromalleolar Regions of the Right Foot, with the Superficial Layer of the Deep Fascia of the Leg, the Internal Annular Ligament of the Ankle, and the Subcutaneous Bursa of the Internal Malleolus. The Inner Border of the Foot with the Abductor Hallucis Muscle. Subcutaneous Bursa of the Calcaneum. Seen from the Inner Side.

Musculi pedis—Muscles of the foot.

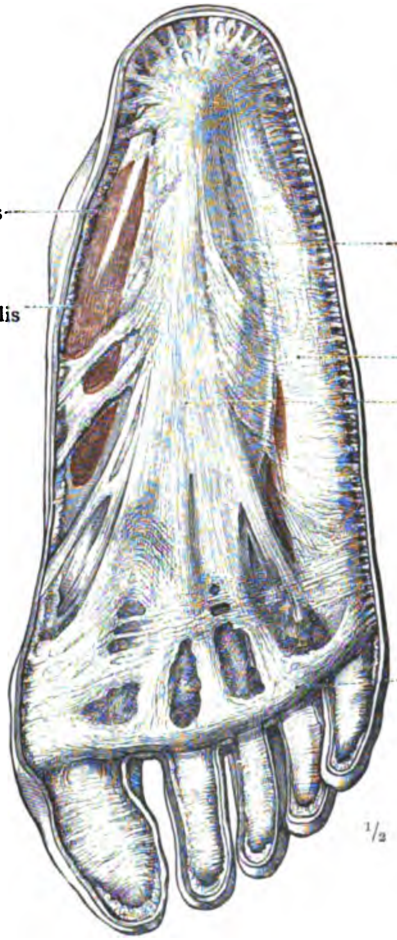
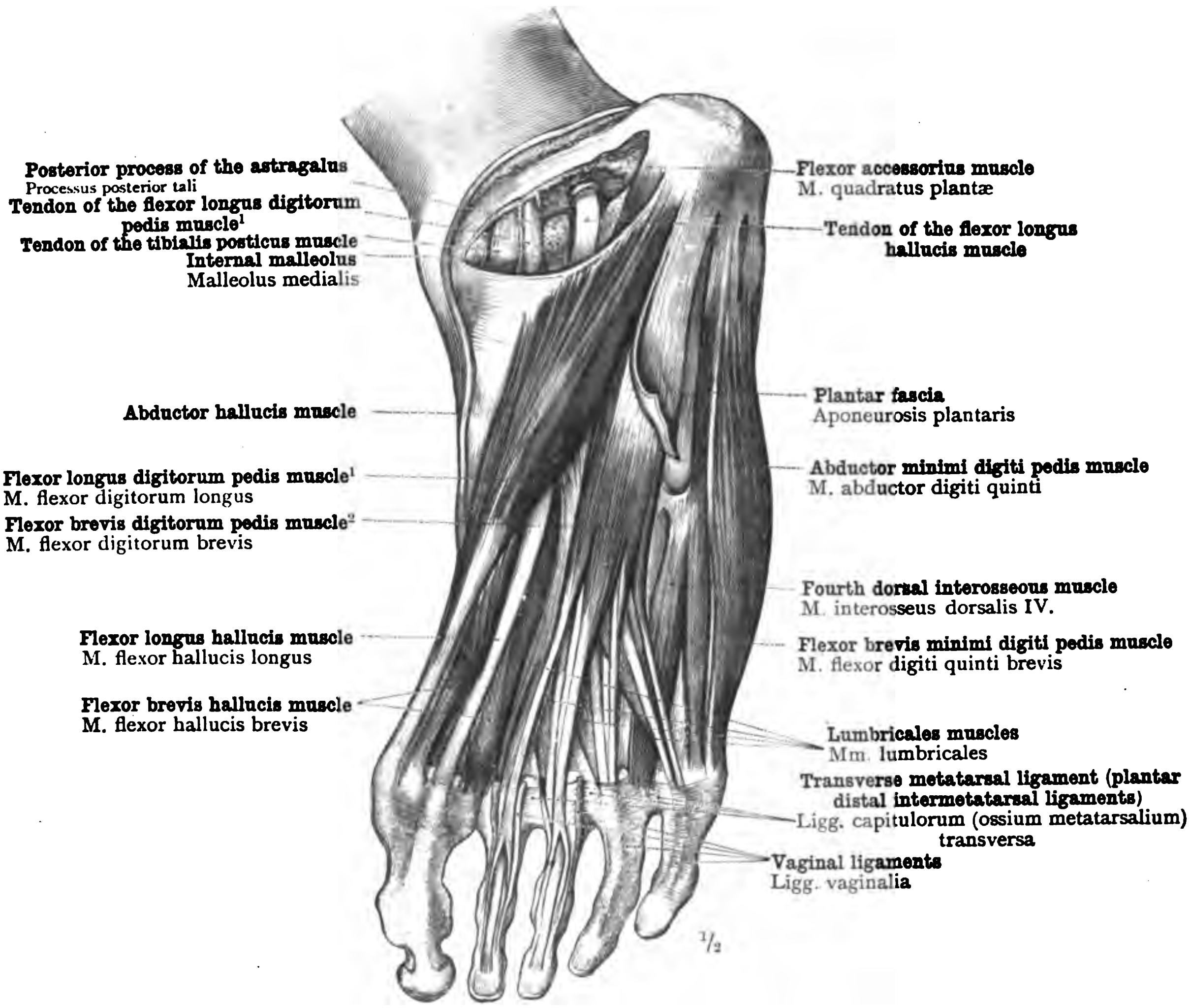

Inner plantar furrow
Sulcus plantaris medialis
Inner plantar eminence
Eminentia plantaris medialis
Outer plantar furrow
Sulcus plantaris lateralis
Outer plantar eminence
Eminentia plantaris lateralis
Central plantar eminence
Eminentia plantaris intermedia
Superficial transverse ligament of the toes
Fasciculi transversi aponeurosis plantaris
1/2

FIG. 624.—APONEUROSIS PLANTARIS, DEEP FASCIA OF THE SOLE, OR PLANTAR FASCIA, WITH THE SUPERFICIAL TRANSVERSE LIGAMENT OF THE TOES; THE FIBRES PASSING FROM THE PLANTAR FASCIA TO THE SKIN, AND THE PROCESSES TO THE DIGITAL SHEATHS; THE PLANTAR EMINENCES AND FURROWS (EMINENTIÆ PLANTARES ET SULCÆ PLANTARES) DEPENDENT ON THE DISPOSITION OF THE MUSCLES AND THE INTERMUSCULAR SEPTA. RIGHT FOOT.

Musculi pedis—Muscles of the foot.


Posterior process of the astragalus
Processus posterior tali
Tendon of the flexor longus digitorum pedis muscle[1]
Tendon of the tibialis posticus muscle
Internal malleolus
Malleolus medialis
Abductor hallucis muscle
Flexor longus digitorum pedis muscle[1]
M. flexor digitorum longus
Flexor brevis digitorum pedis muscle[2]
M. flexor digitorum brevis
Flexor longus hallucis muscle
M. flexor hallucis longus
Flexor brevis hallucis muscle
M. flexor hallucis brevis
Flexor accessorius muscle
M. quadratus plantæ
Tendon of the flexor longus hallucis muscle
Plantar fascia
Aponeurosis plantaris
Abductor minimi digiti pedis muscle
M. abductor digiti quinti
Fourth dorsal interosseous muscle
M. interosseus dorsalis IV.
Flexor brevis minimi digiti pedis muscle
M. flexor digiti quinti brevis
Lumbricales muscles
Mm. lumbricales
Transverse metatarsal ligament (plantar distal intermetatarsal ligaments)
Ligg. capitulorum (ossium metatarsalium) transversa
Vaginal ligaments
Ligg. vaginalia
1/2

[1] Or *flexor perforans* muscle.

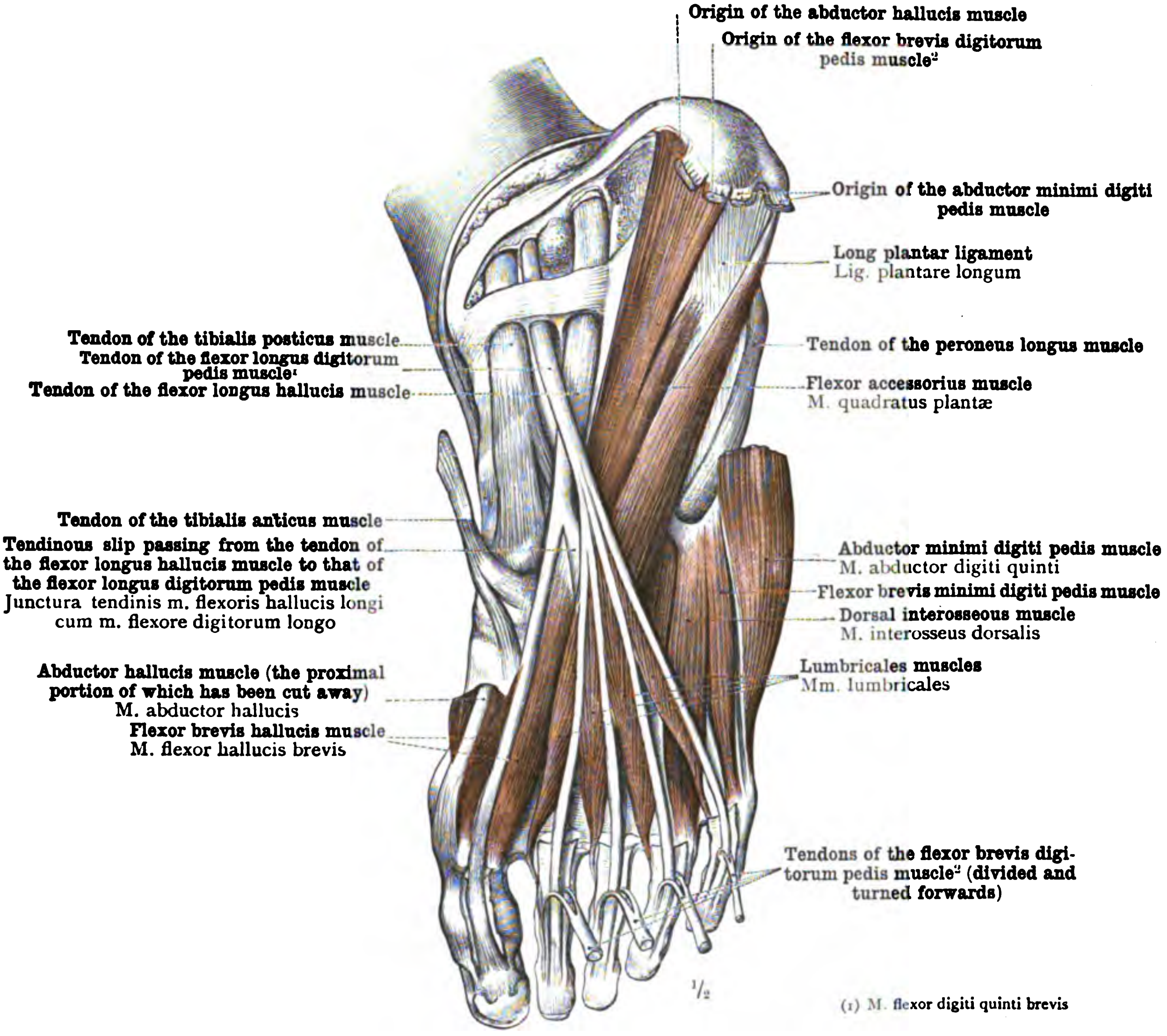
[2] Or *flexor perforatus* muscle.

[3] Like the author, English anatomists group the muscles of the sole in four layers, but the two classifications are not entirely identical. That of the author is given in the description at the foot of Figs. 625 to 628. According to English anatomists, the *first* or superficial layer consists of the flexor brevis digitorum (or flexor perforatus), abductor hallucis and abductor minimi digiti muscles; the *second* layer consists of the tendons of the flexor longus digitorum (or flexor perforans) and flexor longus hallucis muscles, together with the flexor accessorius and lumbricales muscles; the *third* layer consists of the flexor brevis hallucis, adductor obliquus hallucis, adductor transversus hallucis, and flexor brevis minimi digiti muscles; and the *fourth* layer consists of the dorsal and plantar interosseous muscles, together with the tendons of the tibialis posticus and peroneus longus muscles.—Tr.

FIG. 625.—FIRST OR SUPERFICIAL LAYER OF THE MUSCLES OF THE SOLE (*see note [3] above*), UPON WHICH THE THREE PLANTAR EMINENCES DEPEND, AS SEEN AFTER REMOVAL OF THE PLANTAR FASCIA. OF THIS LATTER, THE MIDDLE PORTION ONLY AT THE BACK OF THE SOLE HAS BEEN RETAINED, IN SO FAR AS IT GIVES ORIGIN TO THE MUSCLES. ABDUCTOR HALLUCIS MUSCLE; FLEXOR BREVIS HALLUCIS MUSCLE; FLEXOR BREVIS DIGITORUM PEDIS MUSCLE (*see note [2] above*); FLEXOR BREVIS MINIMI DIGITI PEDIS MUSCLE; ABDUCTOR MINIMI DIGITI PEDIS MUSCLE. RIGHT FOOT, EXTENDED. PLANTAR ASPECT.

The sheath of the flexor tendons of the toes (vaginal ligament) has been opened longitudinally in the second and third toes, but in the others has been left intact.

Musculi pedis—Muscles of the foot.

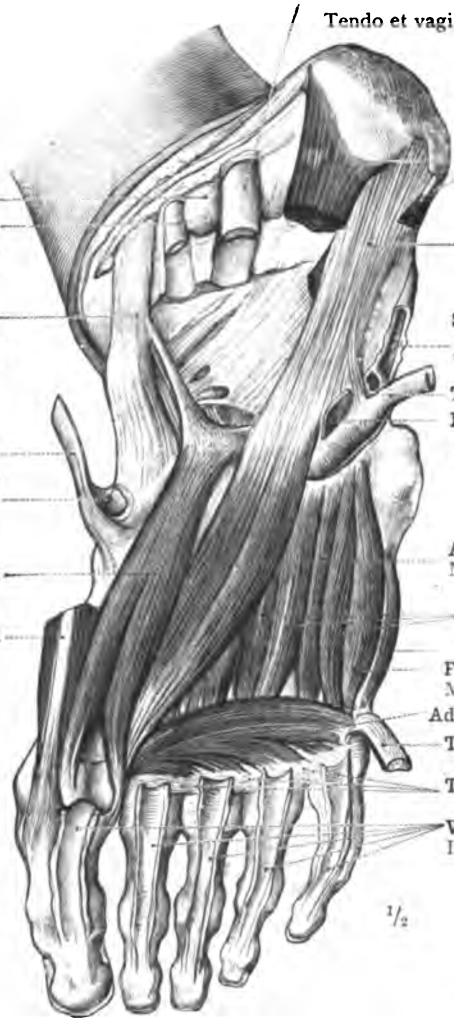

Origin of the abductor hallucis muscle
Origin of the flexor brevis digitorum pedis muscle[2]
Origin of the abductor minimi digiti pedis muscle
Long plantar ligament
Lig. plantare longum
Tendon of the peroneus longus muscle
Flexor accessorius muscle
M. quadratus plantæ
Tendon of the tibialis posticus muscle
Tendon of the flexor longus digitorum pedis muscle[1]
Tendon of the flexor longus hallucis muscle
Tendon of the tibialis anticus muscle
Tendinous slip passing from the tendon of the flexor longus hallucis muscle to that of the flexor longus digitorum pedis muscle
Junctura tendinis m. flexoris hallucis longi cum m. flexore digitorum longo
Abductor minimi digiti pedis muscle
M. abductor digiti quinti
Flexor brevis minimi digiti pedis muscle (1)
Dorsal interosseous muscle
M. interosseus dorsalis
Lumbricales muscles
Mm. lumbricales
Abductor hallucis muscle (the proximal portion of which has been cut away)
M. abductor hallucis
Flexor brevis hallucis muscle
M. flexor hallucis brevis
Tendons of the flexor brevis digitorum pedis muscle[2] (divided and turned forwards)
1/2
(1) M. flexor digiti quinti brevis

[1] Or *flexor perforans* muscle.

[2] Or *flexor perforatus* muscle.

FIG. 626.—SECOND LAYER OF THE MUSCLES OF THE SOLE WITH THE TENDONS OF THE DEEP POSTERIOR MUSCLES OF THE LEG, AS SEEN AFTER THE PARTIAL REMOVAL OF THE MUSCLES OF THE FIRST LAYER: TENDON OF THE FLEXOR LONGUS DIGITORUM PEDIS MUSCLE (*see note* [1] *above*) AND ITS DIVISION INTO FOUR TENDONS PASSING TO THE FOUR SMALLER TOES; FLEXOR ACCESSORIUS (QUADRATUS PLANTÆ) AND LUMBRICALES MUSCLES; TENDON OF THE FLEXOR LONGUS HALLUCIS MUSCLE AND ITS SLIP TO THE TENDON OF THE FLEXOR LONGUS DIGITORUM PEDIS MUSCLE; INSERTION OF THE TIBIALIS ANTICUS AND TIBIALIS POSTICUS MUSCLES; FLEXOR BREVIS HALLUCIS MUSCLE; FLEXOR BREVIS MINIMI DIGITI PEDIS MUSCLE. RIGHT FOOT.

Musculi pedis—Muscles of the foot.

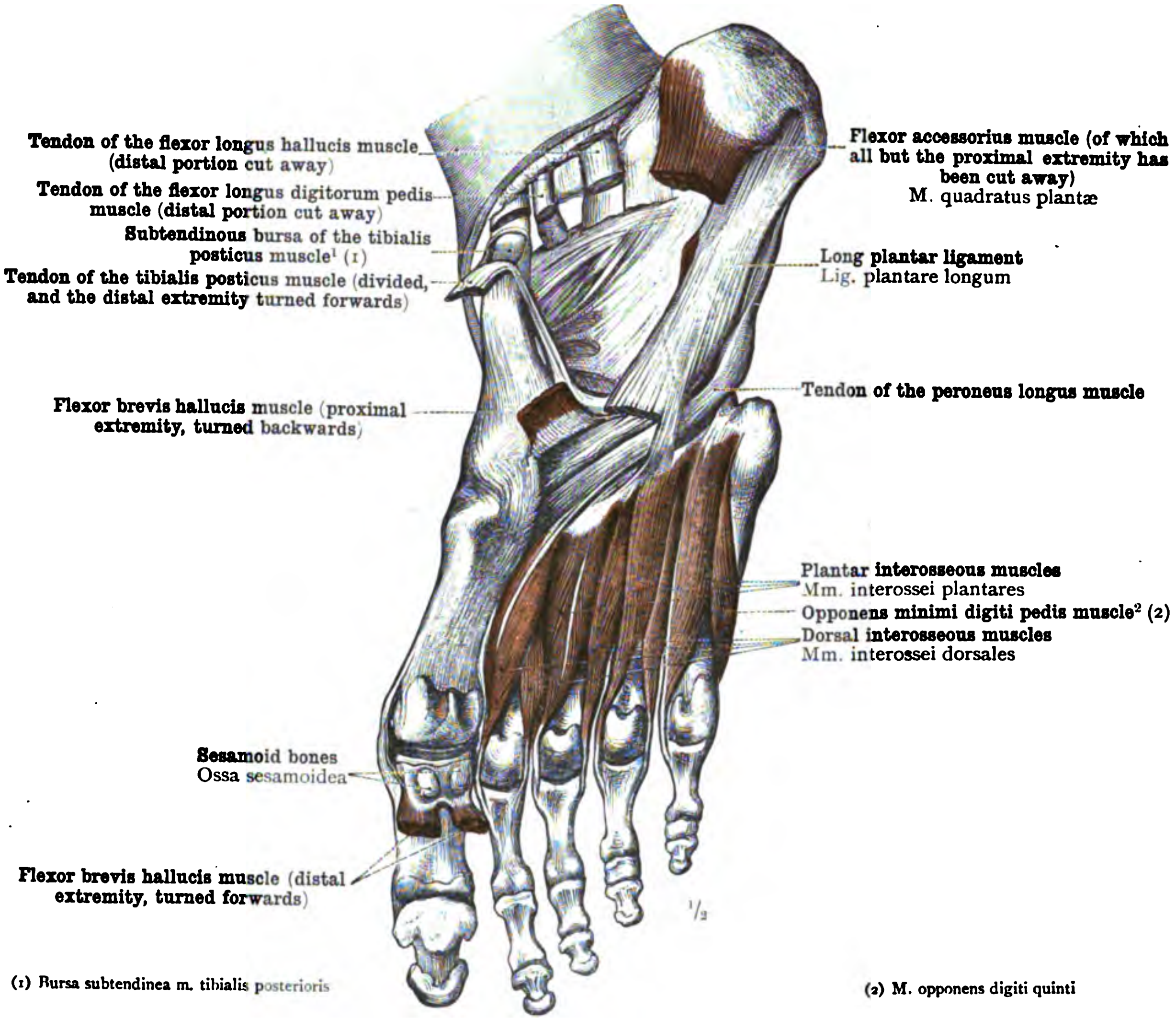

Tendon and synovial sheath of the tendon of the flexor longus hallucis muscle
Tendo et vagina tendinis m. flexoris hallucis longi
Posterior process of the astragalus
Processus posterior tali
Tendon and synovial sheath of the tendon of the flexor longus digitorum pedis muscle[1]—Tendo et vagina tendinis m. flexoris digitorum longi
Tendon and synovial sheath of the tendon of the tibialis posticus muscle
Tendo et vagina tendinis m. tibialis posterioris
Tendon of the tibialis anticus muscle
Subtendinous bursa of the tibialis anticus muscle[2]
Bursa subtendinea m. tibialis anterioris
Flexor brevis hallucis muscle
M. flexor hallucis brevis
Abductor hallucis muscle (the proximal portion having been removed)
Flexor accessorius muscle (of which all but the proximal extremity has been cut away)
M. quadratus plantæ
Long plantar ligament
Lig. plantare longum
Synovial sheath of the tendons of the peroneus longus and peroneus brevis muscle
Vagina tendinum mm. peronæorum communis
Tendon of the peroneus longus muscle
Plantar synovial sheath of the tendon of the peroneus longus muscle
Vagina tendinis m. peronæi longi plantaris
Adductor obliquus hallucis muscle
M. adductor hallucis (caput obliquum)
Interosseous muscles
Mm. interossei
***Opponens minimi digiti pedis muscle**[3] (1)
Flexor brevis minimi digiti pedis muscle[3]
M. flexor digiti quinti brevis
Adductor transversus hallucis muscle (2)
Tendon of the abductor minimi digiti pedis muscle
Transverse metatarsal ligament (plantar distal intermetatarsal ligaments) (3)
Vaginal ligaments
Ligg. vaginalia
1/2
(1) M. opponens digiti quinti
(2) M. adductor hallucis (caput transversum)
(3) Ligg. capitulorum transversa

---

[1] Or *flexor perforans* muscle.
[2] The *subtendinous bursa of the tibialis anticus muscle* is situate beneath the tendon close to its insertion.—Tr.
[3] See note 3 to p. 364.

FIG. 627.—THIRD LAYER OF THE MUSCLES OF THE SOLE: M. ADDUCTOR HALLUCIS, CAPUT OBLIQUUM ET CAPUT TRANSVERSUM, OR, ACCORDING TO ENGLISH ANATOMISTS, ADDUCTOR OBLIQUUS HALLUCIS AND ADDUCTOR TRANSVERSUS HALLUCIS MUSCLES; FLEXOR BREVIS HALLUCIS MUSCLE; FLEXOR BREVIS MINIMI DIGITI PEDIS AND OPPONENS MINIMI DIGITI PEDIS MUSCLES (*see note* [3] *to p.* 364). SYNOVIAL SHEATHS OF THE TENDONS OF THE TIBIALIS POSTICUS, FLEXOR LONGUS DIGITORUM PEDIS, FLEXOR LONGUS HALLUCIS, AND PERONEUS LONGUS MUSCLES. SUBTENDINOUS BURSA OF THE TIBIALIS ANTICUS MUSCLE. RIGHT FOOT.

The vaginal ligaments of the toes have been opened, and their connexion with the transverse metatarsal ligament (plantar distal intermetatarsal ligaments) is displayed.


Tendon of the flexor longus hallucis muscle (distal portion cut away)
Tendon of the flexor longus digitorum pedis muscle (distal portion cut away)
Subtendinous bursa of the tibialis posticus muscle[1] (1)
Tendon of the tibialis posticus muscle (divided, and the distal extremity turned forwards)
Flexor brevis hallucis muscle (proximal extremity, turned backwards)
Sesamoid bones
Ossa sesamoidea
Flexor brevis hallucis muscle (distal extremity, turned forwards)
Flexor accessorius muscle (of which all but the proximal extremity has been cut away)
M. quadratus plantæ
Long plantar ligament
Lig. plantare longum
Tendon of the peroneus longus muscle
Plantar interosseous muscles
Mm. interossei plantares
Opponens minimi digiti pedis muscle[2] (2)
Dorsal interosseous muscles
Mm. interossei dorsales
1/2
(1) Bursa subtendinea m. tibialis posterioris
(2) M. opponens digiti quinti

[1] The *subtendinous bursa of the tibialis posticus muscle* is situate beneath the tendon close to its insertion.—Tr.

[2] See note 3 to p. 364.

FIG. 628.—FOURTH OR DEEPEST LAYER OF THE MUSCLES OF THE SOLE, AS SEEN AFTER THE REMOVAL OF THE FLEXOR BREVIS HALLUCIS, ADDUCTOR OBLIQUUS HALLUCIS, ADDUCTOR TRANSVERSUS HALLUCIS, AND FLEXOR BREVIS MINIMI DIGITI PEDIS MUSCLES: PLANTAR AND DORSAL INTEROSSEOUS MUSCLES. RELATION OF THE INSERTION OF THE TWO BELLIES OF THE FLEXOR BREVIS HALLUCIS MUSCLE TO THE SESAMOID BONES ON THE PLANTAR SURFACE OF THE METATARSOPHALANGEAL ARTICULATION OF THE GREAT TOE. SUBTENDINOUS BURSA OF THE TIBIALIS POSTICUS MUSCLES. RIGHT FOOT.

In order to demonstrate the course of the tendon of the peroneus longus muscle through the sole of the foot and the insertion of this tendon into the outer side of the tuberosity of the first metatarsal bone, the anterior portions of the long plantar ligament have been removed.

Musculi pedis—Muscles of the foot.

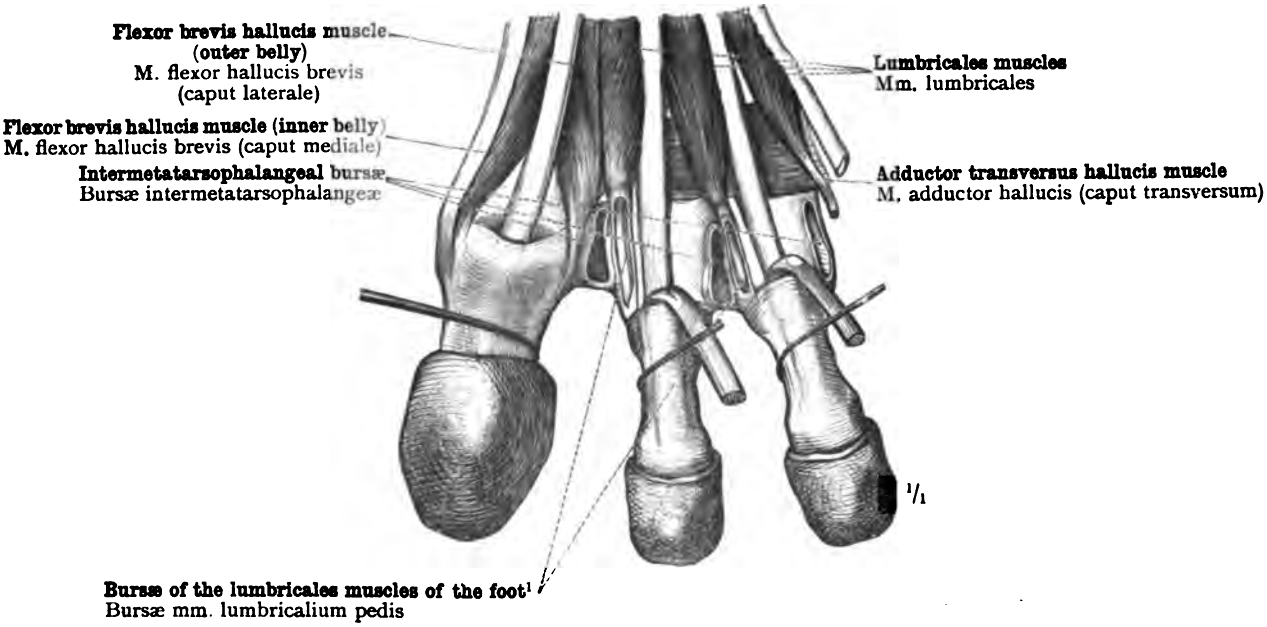

Flexor brevis hallucis muscle (outer belly)
M. flexor hallucis brevis (caput laterale)
Flexor brevis hallucis muscle (inner belly)
M. flexor hallucis brevis (caput mediale)
Intermetatarsophalangeal bursæ
Bursæ intermetatarsophalangeæ
Lumbricales muscles
Mm. lumbricales
Adductor transversus hallucis muscle
M. adductor hallucis (caput transversum)
1/1
Bursæ of the lumbricales muscles of the foot[1]
Bursæ mm. lumbricalium pedis

FIG. 629.—BURSÆ OF THE LUMBRICALES MUSCLES OF THE FOOT AND INTERMETATARSOPHALANGEAL BURSÆ, AS SEEN FROM THE PLANTAR SURFACE. THE BURSÆ HAVE BEEN OPENED. FIRST THREE TOES OF THE RIGHT FOOT, WIDELY SEPARATED.

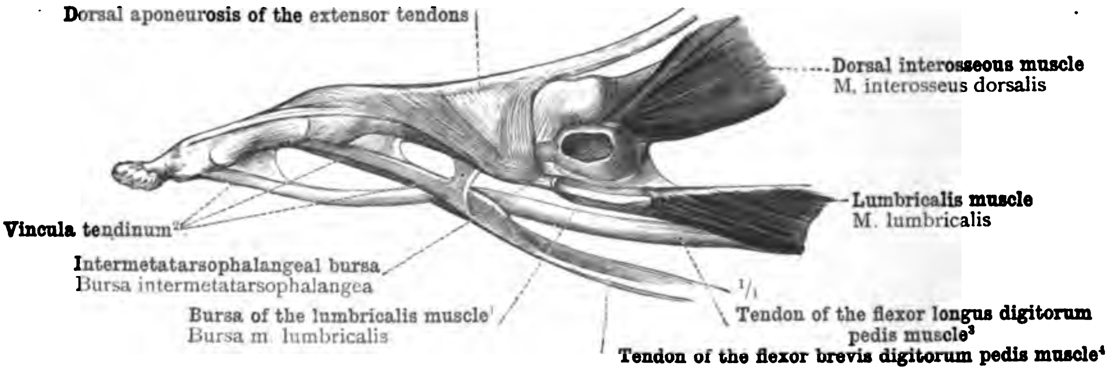

Dorsal aponeurosis of the extensor tendons
Dorsal interosseous muscle
M. interosseus dorsalis
Lumbricalis muscle
M. lumbricalis
Vincula tendinum[2]
Intermetatarsophalangeal bursa
Bursa intermetatarsophalangea
Bursa of the lumbricalis muscle[1]
Bursa m. lumbricalis
1/1
Tendon of the flexor longus digitorum pedis muscle[3]
Tendon of the flexor brevis digitorum pedis muscle[4]

FIG. 630.—DISTAL EXTREMITIES OF THE EXTENSOR AND FLEXOR TENDONS OF THE SECOND TOE OF THE RIGHT FOOT, SEEN FROM THE INNER SIDE. DORSAL APONEUROSIS OF THE EXTENSOR TENDONS. BURSA OF THE LUMBRICALIS MUSCLE OF THE FOOT AND INTERMETATARSOPHALANGEAL BURSA. VINCULA TENDINUM.

---

[1] The *bursæ of the lumbricales muscles of the foot* are situate between the tendons of the lumbricales muscles and the bases of the proximal phalanges.—TR.

[2] The arrangement of the flexor tendons of the toes, with their vincula, closely resembles that of the flexor tendons of the fingers. See Fig. 580 on p. 331, and note [1] on that page.—TR.

[3] Or *flexor perforans* muscle.

[4] Or *flexor perforatus* muscle.

Musculi pedis—Muscles of the foot.

SUPPLEMENT TO THE MYOLOGY

CANALIS INGUINALIS,
THE INGUINAL CANAL,
AND
CANALIS FEMORALIS,
THE FEMORAL OR CRURAL CANAL

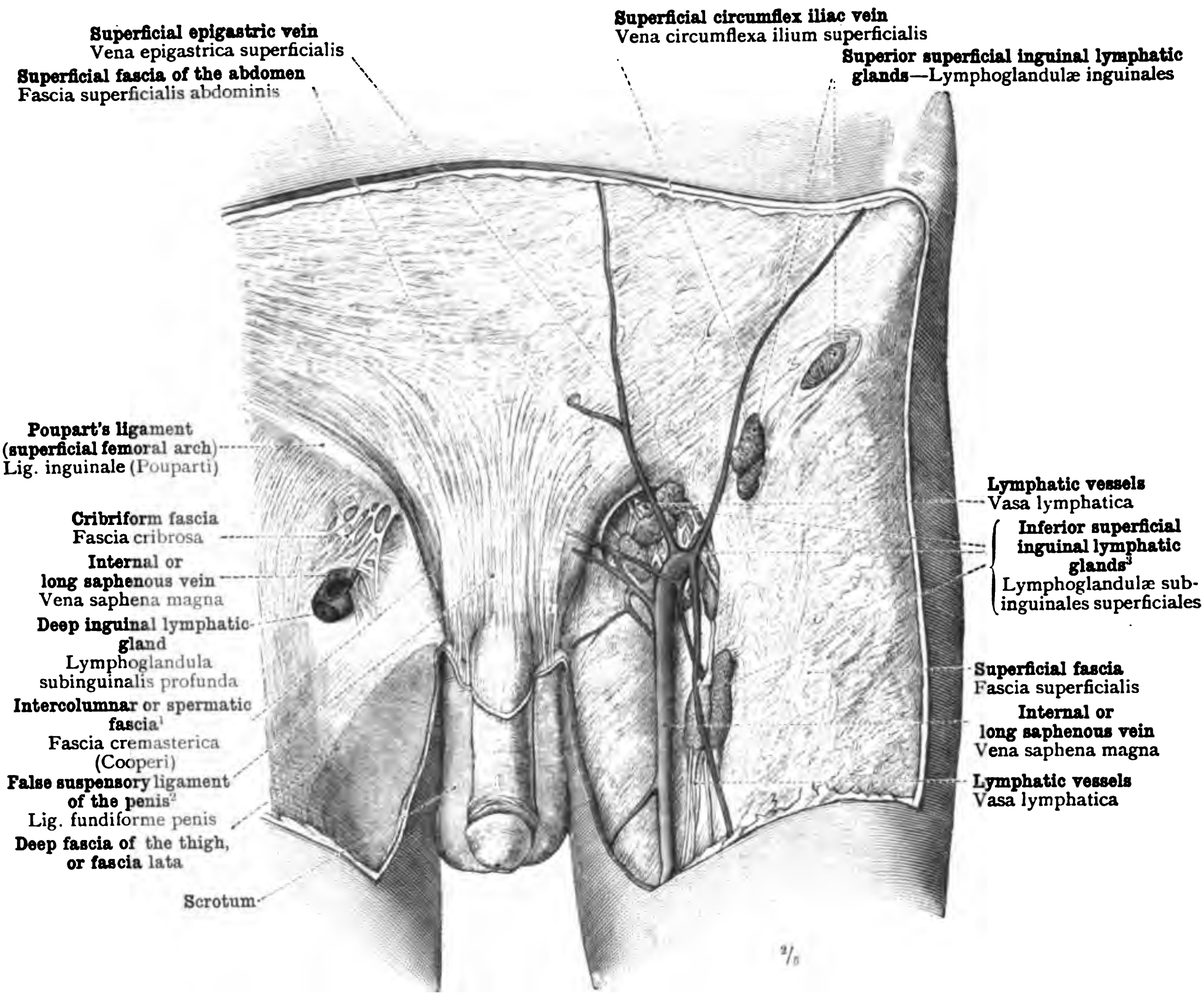

Superficial epigastric vein
Vena epigastrica superficialis
Superficial fascia of the abdomen
Fascia superficialis abdominis
Superficial circumflex iliac vein
Vena circumflexa ilium superficialis
Superior superficial inguinal lymphatic glands—Lymphoglandulæ inguinales
Poupart's ligament (superficial femoral arch)
Lig. inguinale (Pouparti)
Cribriform fascia
Fascia cribrosa
Internal or long saphenous vein
Vena saphena magna
Deep inguinal lymphatic gland
Lymphoglandula subinguinalis profunda
Intercolumnar or spermatic fascia[1]
Fascia cremasterica (Cooperi)
False suspensory ligament of the penis[2]
Lig. fundiforme penis
Deep fascia of the thigh, or fascia lata
Scrotum
Lymphatic vessels
Vasa lymphatica
Inferior superficial inguinal lymphatic glands[3]
Lymphoglandulæ subinguinales superficiales
Superficial fascia
Fascia superficialis
Internal or long saphenous vein
Vena saphena magna
Lymphatic vessels
Vasa lymphatica
²/₃

FIG. 631.—SUPERFICIAL FASCIA OF THE ANTERIOR WALL OF THE ABDOMEN, WITH THE FALSE SUSPENSORY LIGAMENT OF THE PENIS (LIGAMENTUM FUNDIFORME PENIS) AND THE CREMASTERIC FASCIA (FASCIA CREMASTERICA COOPERI) COVERING THE SPERMATIC CORD. IN THE PORTION OF THE LEFT THIGH FROM WHICH THE SKIN HAS BEEN REMOVED WE SEE THE SUPERFICIAL FASCIA WITH THE SUPERFICIAL INGUINAL AND FEMORAL LYMPHATIC GLANDS AND THE SUBCUTANEOUS VEINS. IN THE RIGHT THIGH THE SUPERFICIAL FASCIA, THE SUPERFICIAL LYMPHATIC GLANDS, AND THE SUBCUTANEOUS VEINS, HAVE BEEN REMOVED, AND THE FASCIA LATA AND THE CRIBRIFORM FASCIA ARE LAID BARE.

Subcutaneous Structures of the Hypogastric and Inguinal Regions.

---

[1] *Fascia Cremasterica* (*Cooperi*).—This is not the *cremasteric fascia* of English anatomists, nor is it the *fascia propria of Astley Cooper*, but the *intercolumnar* or *spermatic fascia*. See note [1] to p. 501 in Part IV.—TR.

[2] The *suspensory ligament of the penis* consists of two parts: a *superficial*, the *false suspensory ligament*; and a *deep*, the *true suspensory ligament*. The former, called by the author *ligamentum fundiforme penis*, when artificially separated from the fascia of the abdomen and the dorsum of the penis (of which it forms a part), is a flattened piece of connective tissue with edges directed laterally and surfaces directed forwards and backwards, respectively. The latter, called by the author *ligamentum suspensorium penis*, when dissected out, has an anterior free edge, a postero-superior edge attached to the front of the pubic symphysis, and a postero inferior edge attached to the dorsum of the penis, whilst its surfaces look to right and to left (see Fig. 632). The false suspensory ligament contains many yellow elastic fibres; the true consists of white fibres only.—TR.

[3] Often called the *femoral lymphatic glands*.

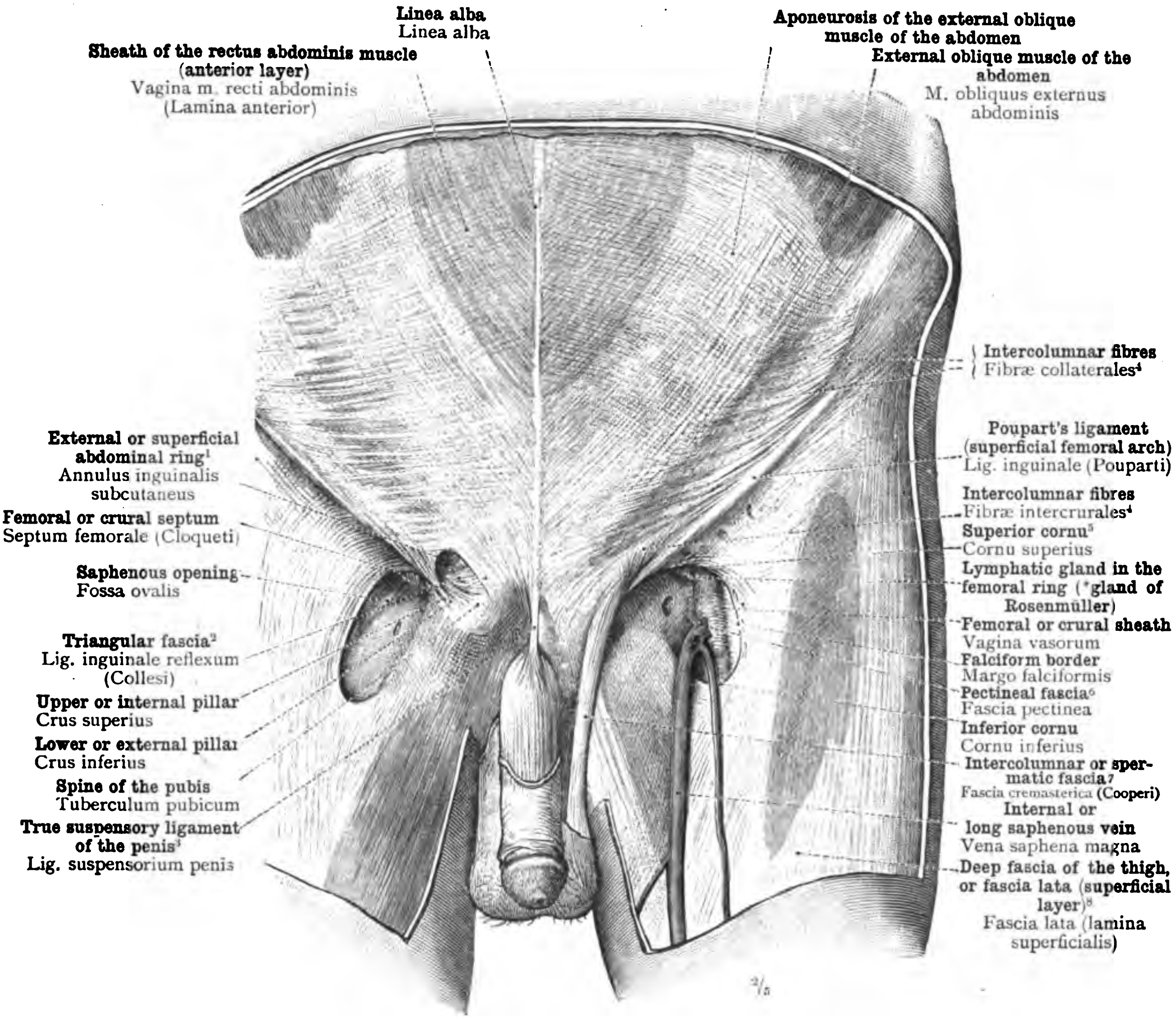

Linea alba
Linea alba
Sheath of the rectus abdominis muscle (anterior layer)
Vagina m. recti abdominis (Lamina anterior)
Aponeurosis of the external oblique muscle of the abdomen
External oblique muscle of the abdomen
M. obliquus externus abdominis
Intercolumnar fibres
Fibræ collaterales⁴
External or superficial abdominal ring¹
Annulus inguinalis subcutaneus
Femoral or crural septum
Septum femorale (Cloqueti)
Saphenous opening
Fossa ovalis
Triangular fascia²
Lig. inguinale reflexum (Collesi)
Upper or internal pillar
Crus superius
Lower or external pillar
Crus inferius
Spine of the pubis
Tuberculum pubicum
True suspensory ligament of the penis³
Lig. suspensorium penis
Poupart's ligament (superficial femoral arch)
Lig. inguinale (Pouparti)
Intercolumnar fibres
Fibræ intercrurales⁴
Superior cornu⁵
Cornu superius
Lymphatic gland in the femoral ring (*gland of Rosenmüller)
Femoral or crural sheath
Vagina vasorum
Falciform border
Margo falciformis
Pectineal fascia⁶
Fascia pectinea
Inferior cornu
Cornu inferius
Intercolumnar or spermatic fascia⁷
Fascia cremasterica (Cooperi)
Internal or long saphenous vein
Vena saphena magna
Deep fascia of the thigh, or fascia lata (superficial layer)⁸
Fascia lata (lamina superficialis)
2/3

Fig. 632.—In the Hypogastric Region, by the Removal of the Superficial Fascia, the Aponeurosis of the External Oblique Muscle of the Abdomen and the Anterior Layer of the Sheath of the Rectus Abdominis Muscle have been laid bare. In the Inguinal Region, on the Right Side of the Body, we see the External or Superficial Abdominal Ring (External Inguinal Aperture) with its Two Pillars, Upper or Internal, and Lower or External, respectively, which are fully displayed by the Removal of the Spermatic Cord; on the Left Side, on the other Hand, the Spermatic Cord with its Coverings has been left intact, and the External Abdominal Ring is, consequently, closed. In the Subinguinal Region, the Cribriform Fascia having been removed, the Saphenous Opening (Fossa Ovalis, Femoral Aperture of the Femoral or Crural Canal) is laid bare, with its Falciform Border and Superior and Inferior Cornua, on the Left Side also with the Internal or Long Saphenous Vein and the Femoral or Crural Sheath, whilst on the Right Side the Femoral Artery and Vein have been removed.

The relation of the external abdominal ring to the spermatic cord and to the saphenous opening is to be noted.

Annulus inguinalis subcutaneus—External or superficial abdominal ring.
Fossa ovalis—Saphenous opening.

---

[1] Or *external inguinal aperture.*

[2] The *triangular fascia*, or *ligamentum inguinale reflexum Collesi*, consists of some of the fibres of Gimbernat's ligament and of the outer pillar of the external abdominal ring which pass upwards and inwards beneath the spermatic cord in front of, and incorporated with, the anterior layer of the sheath of the rectus abdominis muscle to reach the middle line, where they interlace with the fibres of the opposite side. The development of this fascia is variable, being inversely proportional with that of the pyramidalis muscle, of the sheath of which it forms a specialized part.—Tr.

[3] See note [2] to p. 382.

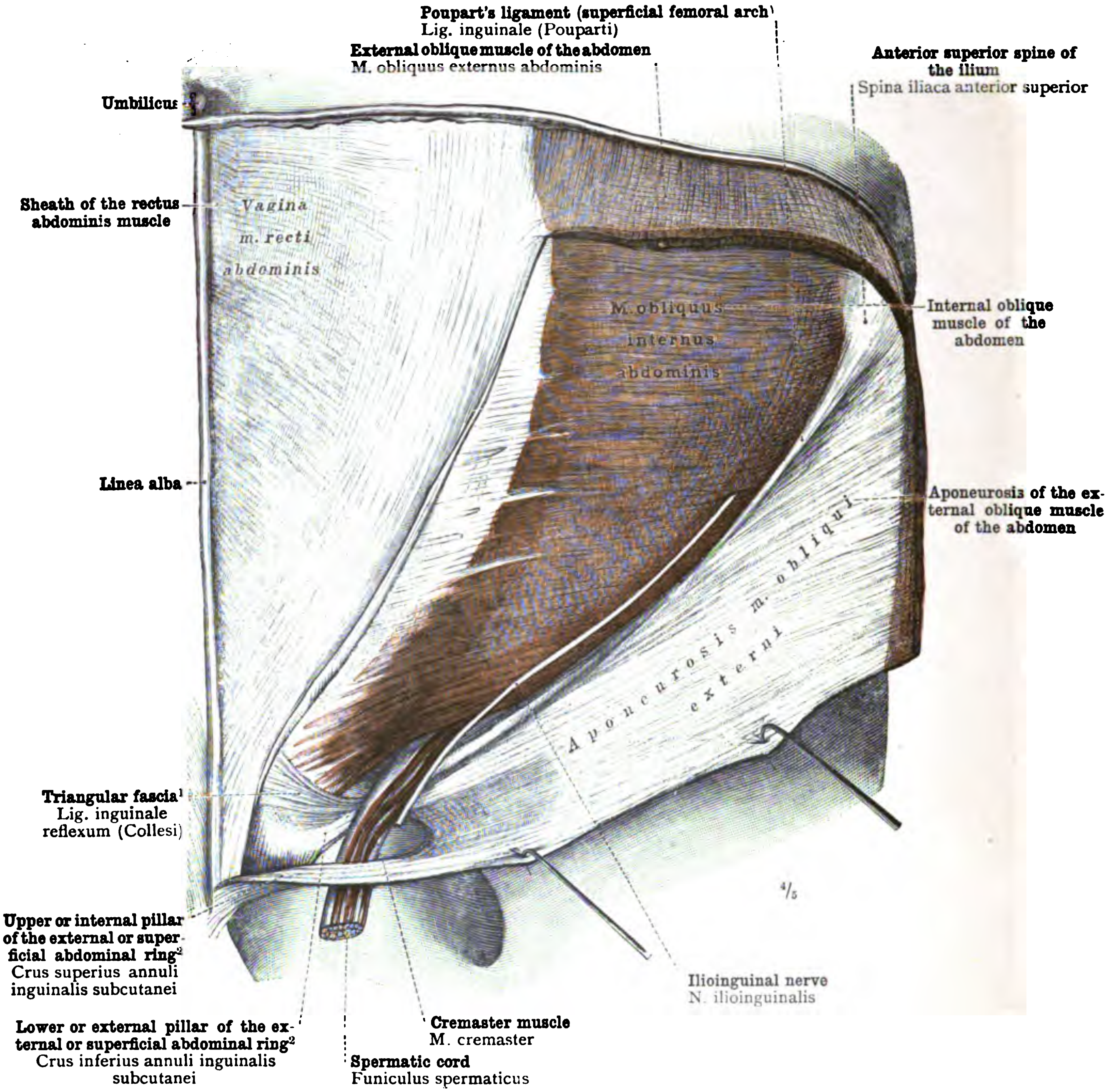
[4] *Intercolumnar Fibres.*—The author distinguishes the lower *intercolumnar fibres*, those which cross the gap between the pillars of the external or superficial abdominal ring, as *fibræ intercrurales;* whilst those *intercolumnar fibres* which are situate entirely above the ring, he calls *fibræ collaterales.*

[5] See note [1] to p. 349.

[6] Or *pubic portion of the fascia lata.*

[7] See note [1] to p. 382.

[8] See note [2] to p. 349.


Poupart's ligament (superficial femoral arch)[1]
Lig. inguinale (Pouparti)
External oblique muscle of the abdomen
M. obliquus externus abdominis
Anterior superior spine of the ilium
Spina iliaca anterior superior
Umbilicus
Sheath of the rectus abdominis muscle
Vagina m. recti abdominis
M. obliquus internus abdominis
Internal oblique muscle of the abdomen
Linea alba
Aponeurosis of the external oblique muscle of the abdomen
Aponeurosis m. obliqui externi
Triangular fascia[1]
Lig. inguinale reflexum (Collesi)
Upper or internal pillar of the external or superficial abdominal ring[2]
Crus superius annuli inguinalis subcutanei
4/5
Ilioinguinal nerve
N. ilioinguinalis
Lower or external pillar of the external or superficial abdominal ring[2]
Crus inferius annuli inguinalis subcutanei
Cremaster muscle
M. cremaster
Spermatic cord
Funiculus spermaticus

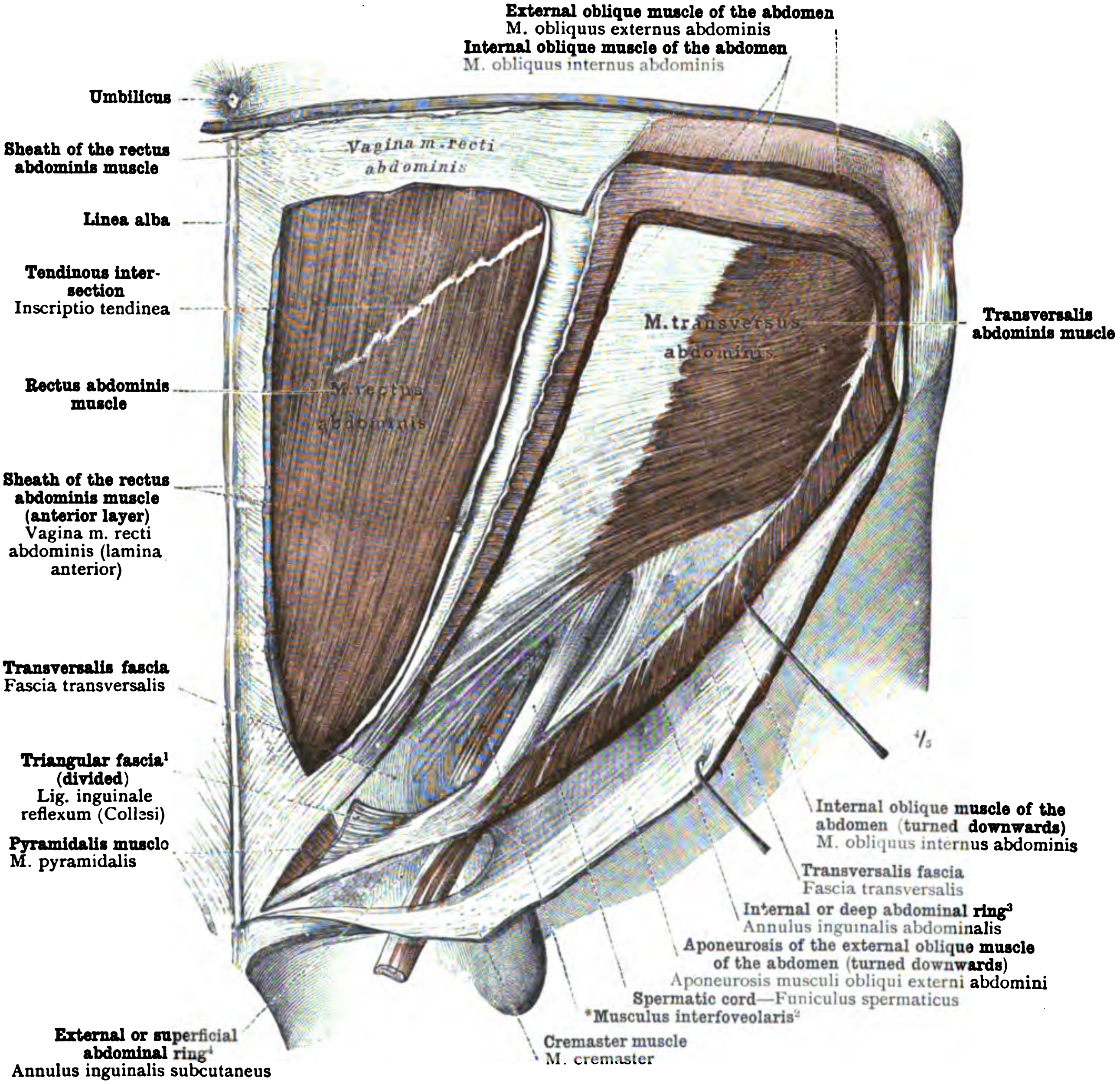
[1] See note [2] to p. 383.

[2] Or *external inguinal aperture*.

FIG. 633.—INNER PORTION OF THE LEFT INGUINAL CANAL, FROM THE EXTERNAL OR SUPERFICIAL ABDOMINAL RING (EXTERNAL INGUINAL APERTURE) TO THE APERTURE FOR THE SPERMATIC CORD IN THE INTERNAL OBLIQUE MUSCLE OF THE ABDOMEN, DISPLAYED BY THE REMOVAL OF A PORTION OF THE EXTERNAL OBLIQUE MUSCLE OF THE ABDOMEN. CONTINUITY OF THE CREMASTER MUSCLE WITH THE LOWERMOST FASCICULI OF THE INTERNAL OBLIQUE MUSCLE OF THE ABDOMEN. TRIANGULAR FASCIA, OR LIGAMENTUM INGUINALE REFLEXUM (COLLESI).

The lower part of the aponeurosis of the external oblique muscle of the abdomen, together with the upper or internal pillar of the external abdominal ring, has been turned downwards.

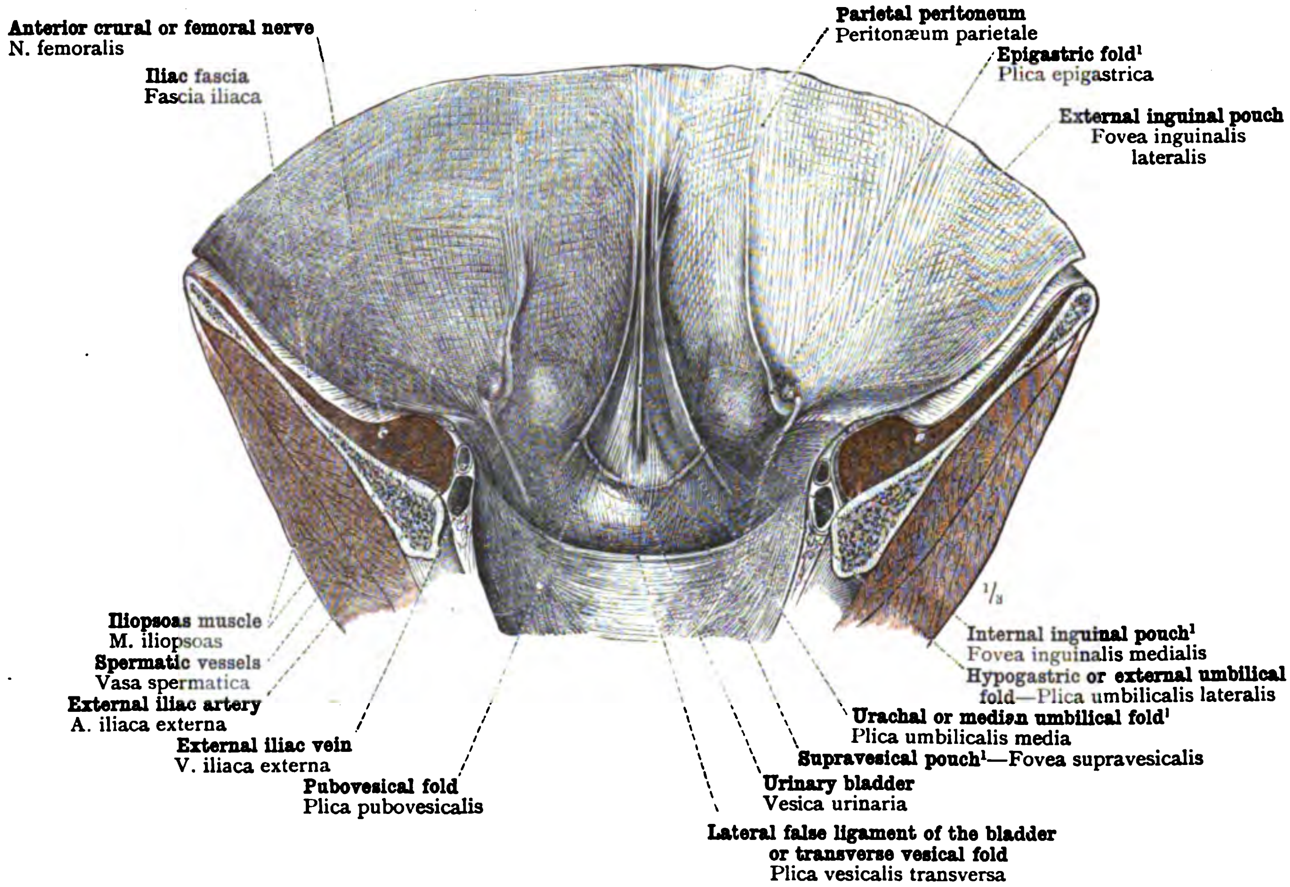
Canalis inguinalis—Inguinal canal.


External oblique muscle of the abdomen
M. obliquus externus abdominis
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
Umbilicus
Sheath of the rectus abdominis muscle
Vagina m. recti abdominis
Linea alba
Tendinous intersection
Inscriptio tendinea
M. transversus abdominis
Transversalis abdominis muscle
Rectus abdominis muscle
M. rectus abdominis
Sheath of the rectus abdominis muscle (anterior layer)
Vagina m. recti abdominis (lamina anterior)
Transversalis fascia
Fascia transversalis
1/5
Triangular fascia[1] (divided)
Lig. inguinale reflexum (Collesi)
Pyramidalis muscle
M. pyramidalis
Internal oblique muscle of the abdomen (turned downwards)
M. obliquus internus abdominis
Transversalis fascia
Fascia transversalis
Internal or deep abdominal ring[3]
Annulus inguinalis abdominalis
Aponeurosis of the external oblique muscle of the abdomen (turned downwards)
Aponeurosis musculi obliqui externi abdomini
Spermatic cord—Funiculus spermaticus
***Musculus interfoveolaris[2]**
External or superficial abdominal ring[4]
Annulus inguinalis subcutaneus
Cremaster muscle
M. cremaster

[1] See note 2 to p. 383. [2] See note 3 to p. 275. [3] Or *internal inguinal aperture.* [4] Or *external inguinal aperture.*

FIG. 634.—OUTER PORTION OF THE LEFT INGUINAL CANAL, FROM THE APERTURE FOR THE SPERMATIC CORD IN THE INTERNAL OBLIQUE MUSCLE OF THE ABDOMEN TO THE INTERNAL OR DEEP ABDOMINAL RING (INTERNAL INGUINAL APERTURE), DISPLAYED BY THE REMOVAL OF A PORTION OF THE INTERNAL OBLIQUE MUSCLE OF THE ABDOMEN. MUSCULUS INTERFOVEOLARIS (*see note* 3 *to p.* 275), THE FIBRES OF WHICH LIE IN FRONT OF THE LIGAMENTUM INTERFOVEOLARE OR LIGAMENT OF HESSELBACH (*see note* 1 *to p.* 387), WHICH IS ITSELF NOT DEFINED IN THE FIGURE.

Canalis inguinalis—Inguinal canal.



---

[1] By some authorities the space between the urachal fold and the hypogastric fold (called here *supravesical pouch*) is termed *internal inguinal pouch ;* and the space between the hypogastric fold and the epigastric fold (called here *internal inguinal pouch*) is termed *middle inguinal pouch*. The author's nomenclature is to be preferred. The epigastric fold, on the outer side, and a line drawn on the inner surface of the anterior abdominal wall corresponding to the outer margin of the rectus abdominis muscle, on the inner side, form the sides, while Poupart's ligament forms the base, of a triangular space, usually called the *triangle of Hesselbach*, through which a direct inguinal hernia passes.—TR.

[2] Also called the *superior false ligament*, or *suspensory ligament, of the bladder*.

FIG. 635.—LOWER PORTION OF THE ANTERIOR WALL OF THE ABDOMEN SEEN FROM BEHIND, SHOWING THE PARIETAL PERITONEUM WITH ITS FOLDS AND POUCHES: PLICA UMBILICALIS LATERALIS, THE HYPOGASTRIC OR EXTERNAL UMBILICAL FOLD; PLICA UMBILICALIS MEDIA, THE URACHAL OR MEDIAN UMBILICAL FOLD (*see note* [2] *above*); PLICA EPIGASTRICA, THE EPIGASTRIC FOLD. FOVEÆ INGUINALES, LATERALIS ET MEDIA, THE EXTERNAL AND INTERNAL INGUINAL POUCHES; FOVEA SUPRAVESICALIS, THE SUPRAVESICAL POUCH. PLICA VESICALIS TRANSVERSA, THE LATERAL FALSE LIGAMENT OF THE BLADDER OR TRANSVERSE VESICAL FOLD. PLICÆ PUBOVESICALES, THE PUBOVESICAL FOLDS.

(Coronal section through the lower part of the trunk.)

Plicæ umbilicales—The umbilical folds.—Foveæ inguinales—The inguinal pouches.

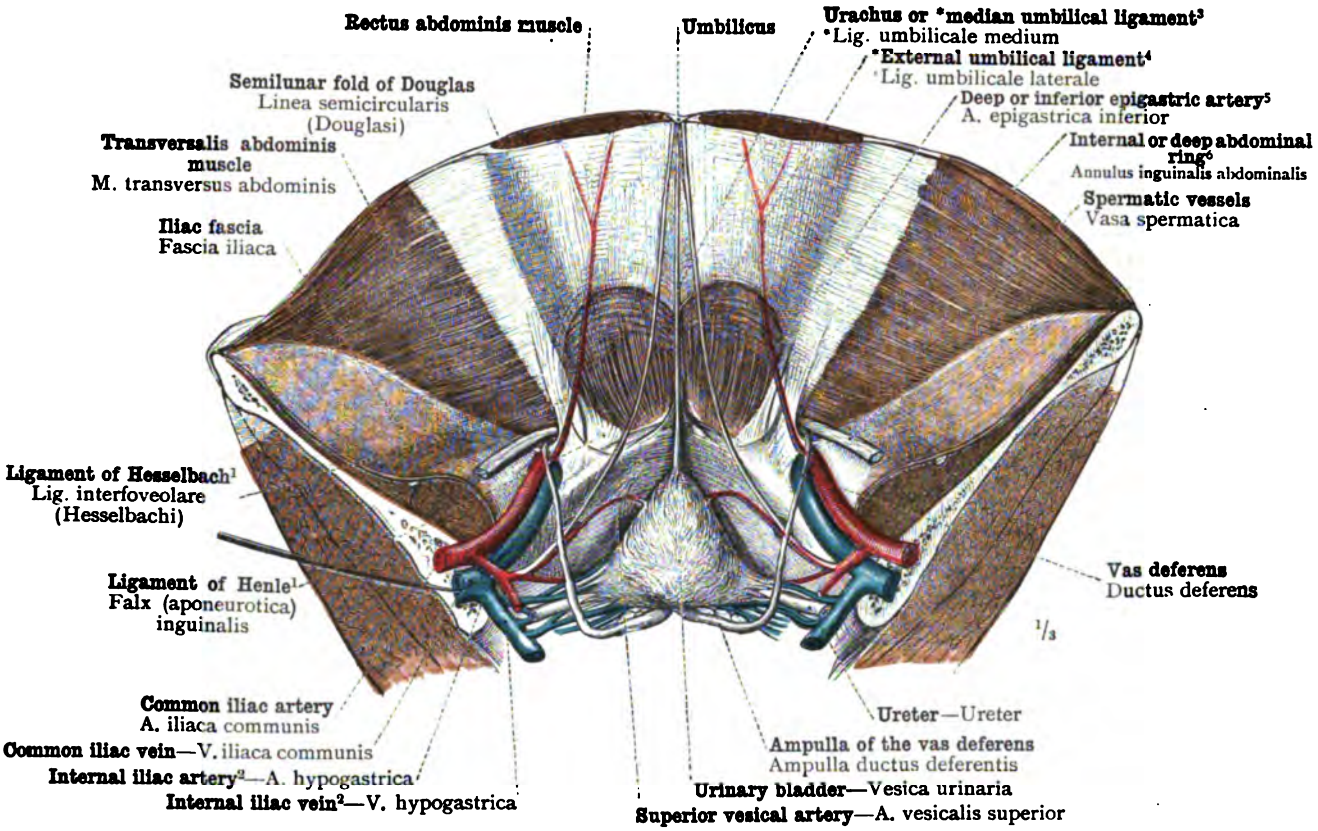

Rectus abdominis muscle
Umbilicus
Urachus or *median umbilical ligament[3]
*Lig. umbilicale medium
*External umbilical ligament[4]
*Lig. umbilicale laterale
Semilunar fold of Douglas
Linea semicircularis (Douglasi)
Deep or inferior epigastric artery[5]
A. epigastrica inferior
Transversalis abdominis muscle
M. transversus abdominis
Internal or deep abdominal ring[6]
Annulus inguinalis abdominalis
Iliac fascia
Fascia iliaca
Spermatic vessels
Vasa spermatica
Ligament of Hesselbach[1]
Lig. interfoveolare (Hesselbachi)
Vas deferens
Ductus deferens
Ligament of Henle[1]
Falx (aponeurotica) inguinalis
1/3
Common iliac artery
A. iliaca communis
Common iliac vein—V. iliaca communis
Internal iliac artery[2]—A. hypogastrica
Internal iliac vein[2]—V. hypogastrica
Ureter—Ureter
Ampulla of the vas deferens
Ampulla ductus deferentis
Urinary bladder—Vesica urinaria
Superior vesical artery—A. vesicalis superior

FIG. 636.—LOWER PORTION OF THE ANTERIOR WALL OF THE ABDOMEN AND THE ANTERIOR WALL OF THE PELVIS, WITH THE URINARY BLADDER, SEEN FROM BEHIND, THE PARIETAL PERITONEUM AND THE TRANSVERSALIS FASCIA HAVING BEEN REMOVED. LIGAMENT OF HESSELBACH (LIGAMENTUM INTERFOVEOLARE); *MEDIAN (*see note* [3] *above*) AND *EXTERNAL (*see note* [4] *above*) UMBILICAL LIGAMENTS; DEEP OR INFERIOR EPIGASTRIC ARTERY. INTERNAL OR DEEP ABDOMINAL RING (INTERNAL INGUINAL APERTURE). LIGAMENT OF HENLE (FALX APONEUROTICA INGUINALIS). VAS DEFERENS.

---

[1] The conjoined tendon of the internal oblique muscle of the abdomen and the transversalis abdominis muscle is often divided, or can be readily divided by dissection, into two parts. The outer of these is called the *ligament of Hesselbach*, or *ligamentum interfoveolare*, and the inner is known as the *ligament of Henle*, or *falx inguinalis*.—TR.

[2] The *internal iliac* artery and vein are in the Continental nomenclature known as *hypogastric* artery and vein respectively.—TR.

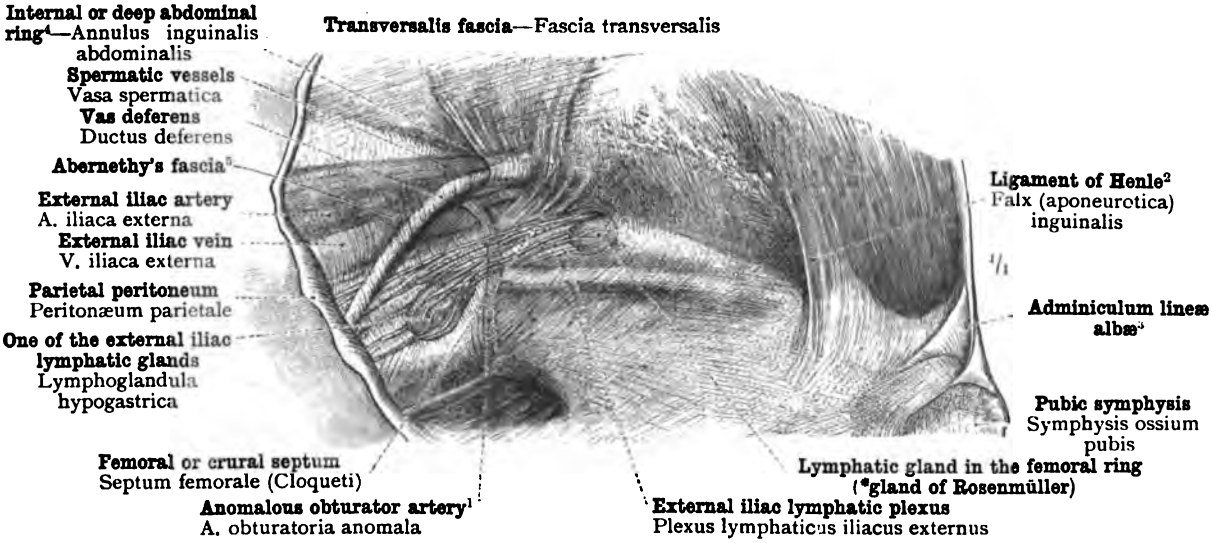
[3] The **median umbilical ligament* consists of a fibrous cord, the *urachus*, extending from the apex of the bladder to the umbilicus, and, when covered by peritoneum, constitutes the *urachal or median umbilical fold*. See Fig. 635, p. 386.—TR.

[4] The **external umbilical ligament* consists of a fibrous cord, the remains of the obliterated hypogastric artery, extending from the superior vesical artery (close to its origin from the internal iliac artery) near the side of the bladder and along the anterior wall of the abdomen to the umbilicus, and, when covered by peritoneum, constitutes the *hypogastric or external umbilical fold*. See Fig. 635, p. 386.—TR.

[5] The *deep or inferior epigastric artery* extends from the external iliac artery along the anterior wall of the abdomen, external to and parallel with the obliterated hypogastric artery, and, when covered with peritoneum, constitutes the *epigastric fold*. See Fig. 635, p. 386.—TR.

[6] Or *internal inguinal aperture*.

*Ligamenta umbilicalia—*Umbilical ligaments.


Internal or deep abdominal ring[4]—Annulus inguinalis abdominalis
Transversalis fascia—Fascia transversalis
Spermatic vessels
Vasa spermatica
Vas deferens
Ductus deferens
Abernethy's fascia[5]
External iliac artery
A. iliaca externa
External iliac vein
V. iliaca externa
Parietal peritoneum
Peritonæum parietale
One of the external iliac lymphatic glands
Lymphoglandula hypogastrica
Ligament of Henle[2]
Falx (aponeurotica) inguinalis
1/1
Adminiculum lineæ albæ[3]
Pubic symphysis
Symphysis ossium pubis
Femoral or crural septum
Septum femorale (Cloqueti)
Anomalous obturator artery[1]
A. obturatoria anomala
Lymphatic gland in the femoral ring (*gland of Rosenmüller)
External iliac lymphatic plexus
Plexus lymphaticus iliacus externus

---

[1] *Anomalous Obturator Artery.*—The normal origin of the obturator artery is from the internal iliac artery, and it sends an anastomotic branch to the deep epigastric artery; but quite frequently this anastomotic branch becomes the main trunk, so that the obturator artery arises, as here, from the external iliac in common with the deep epigastric. When the anomalous obturator artery takes the course shown in the figure, directly downwards across the internal iliac vein to reach the obturator canal, the anomaly is of little practical importance; but in some cases (once in fifty-eight bodies, and more often in males than females) the anomalous obturator artery courses first inwards, and then arches backwards on the inner side of the femoral ring, so that it is in danger of being cut when dividing the stricture in cases of strangulated femoral hernia.—Tr.

[2] See note [1] to p. 387.

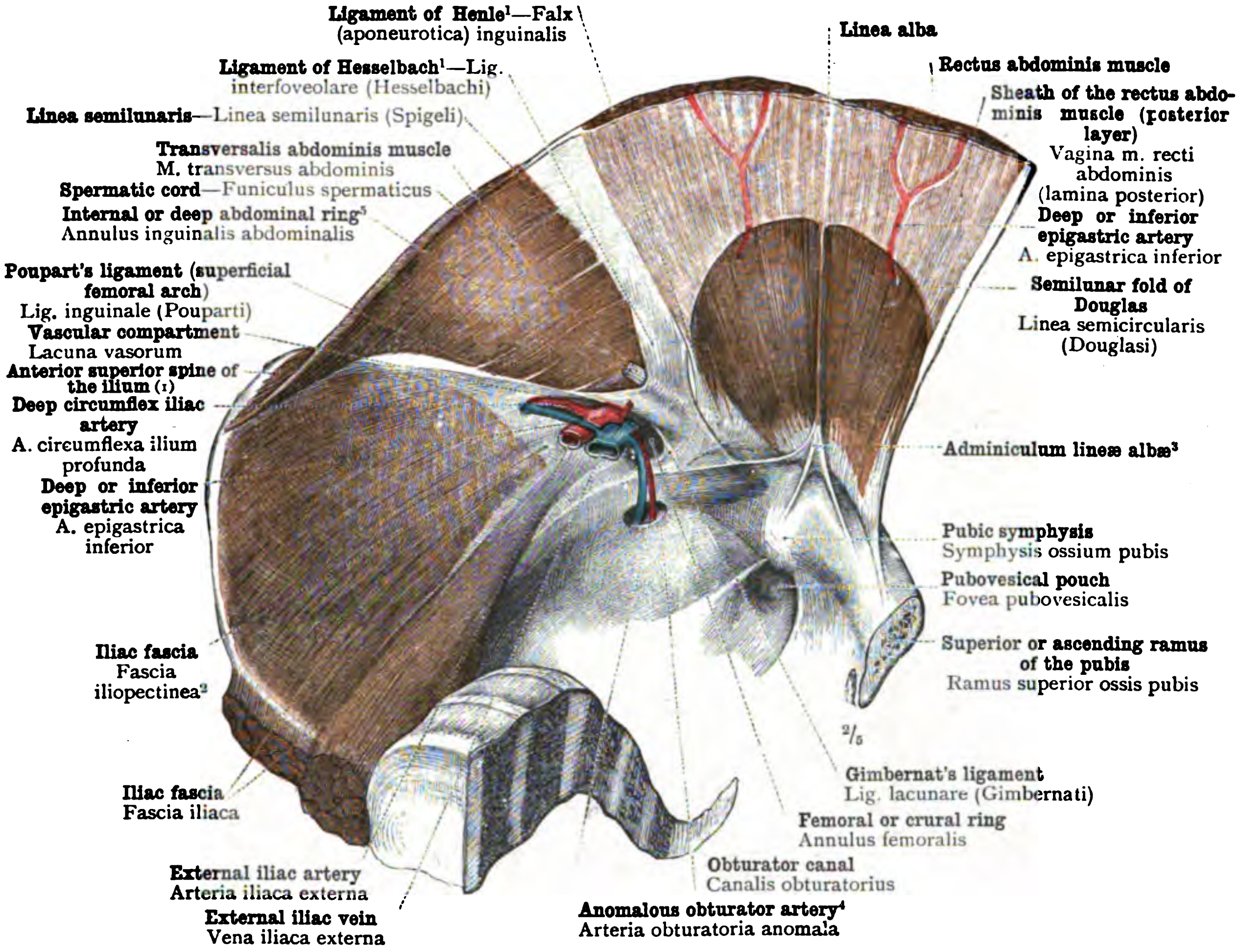
[3] *Adminiculum Lineæ Albæ.*—This name is given to the triangular expansion which spreads out to the right and the left of the lower end of the linea alba, by means of which expansion the linea alba is attached on each side to the crest of the pubis behind the outer head of the rectus abdominis muscle.—Tr.

[4] Or *internal inguinal aperture.*

[5] The fascia covering the external iliac vessels is known as *Abernethy's fascia.*—Tr.

Fig. 637.—Region of the Inguinal Pouches, Foveæ Inguinales, as seen after the Parietal Peritoneum has been stripped from the Abdominal Wall. Left Side of the Body. Relation of the Transversalis Fascia to the Internal or Deep Abdominal Ring (Internal Inguinal Aperture) and to the Femoral or Crural Ring. Connexion of the Transversalis Fascia with the Sheath of the External Iliac Artery and Vein (*see note* [5] *above*): Septum Femorale (Cloqueti), the Femoral or Crural Septum. Prolongation of the Transversalis Fascia from the Internal Abdominal Ring on to the Spermatic Vessels and the Vas Deferens (Infundibuliform Fascia). Relations of the External Iliac Lymphatic Plexus and of the *Lymphatic Gland of Rosenmüller to the Femoral (or Crural) Ring, occluded by the Femoral (or Crural) Septum.

Abdominal Apertures of the Inguinal and Femoral Canals.


Ligament of Henle¹—Falx (aponeurotica) inguinalis
Ligament of Hesselbach¹—Lig. interfoveolare (Hesselbachi)
Linea semilunaris—Linea semilunaris (Spigeli)
Transversalis abdominis muscle
M. transversus abdominis
Spermatic cord—Funiculus spermaticus
Internal or deep abdominal ring⁵
Annulus inguinalis abdominalis
Poupart's ligament (superficial femoral arch)
Lig. inguinale (Pouparti)
Vascular compartment
Lacuna vasorum
Anterior superior spine of the ilium (1)
Deep circumflex iliac artery
A. circumflexa ilium profunda
Deep or inferior epigastric artery
A. epigastrica inferior
Iliac fascia
Fascia iliopectinea²
Iliac fascia
Fascia iliaca
External iliac artery
Arteria iliaca externa
External iliac vein
Vena iliaca externa
Linea alba
Rectus abdominis muscle
Sheath of the rectus abdominis muscle (posterior layer)
Vagina m. recti abdominis (lamina posterior)
Deep or inferior epigastric artery
A. epigastrica inferior
Semilunar fold of Douglas
Linea semicircularis (Douglasi)
Adminiculum lineæ albæ³
Pubic symphysis
Symphysis ossium pubis
Pubovesical pouch
Fovea pubovesicalis
Superior or ascending ramus of the pubis
Ramus superior ossis pubis
2/5
Gimbernat's ligament
Lig. lacunare (Gimbernati)
Femoral or crural ring
Annulus femoralis
Obturator canal
Canalis obturatorius
Anomalous obturator artery⁴
Arteria obturatoria anomala

(1) Spina iliaca anterior superior

[1] See note [1] to p. 387.
[2] See note [1] to p. 390.
[3] See note 3 to p. 388.
[4] See note [1] to p. 388.
[5] Or *internal inguinal aperture.*

FIG. 638.—ANNULUS INGUINALIS ABDOMINALIS, INTERNAL OR DEEP ABDOMINAL RING (INTERNAL INGUINAL APERTURE), AND ANNULUS FEMORALIS, FEMORAL OR CRURAL RING, LAID BARE ON THE LEFT SIDE OF THE BODY BY THE REMOVAL OF THE PARIETAL PERITONEUM AND THE TRANSVERSALIS FASCIA; SEEN FROM BEHIND. LIGAMENTUM INTERFOVEOLARE (HESSELBACHI), LIGAMENT OF HESSELBACH, AND FALX (APONEUROTICA) INGUINALIS, LIGAMENT OF HENLE. RELATION OF THE OBTURATOR ARTERY, WHICH IN THIS INSTANCE ARISES FROM THE DEEP EPIGASTRIC ARTERY, TO THE FEMORAL OR CRURAL RING.

Abdominal Apertures of the Inguinal and Femoral Canals.

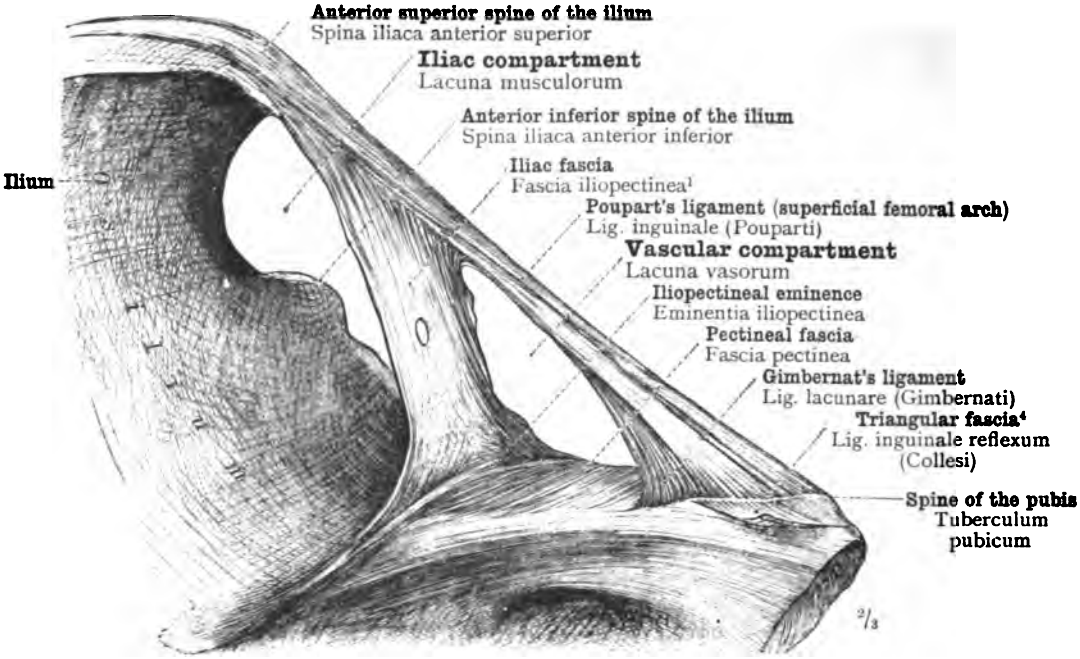
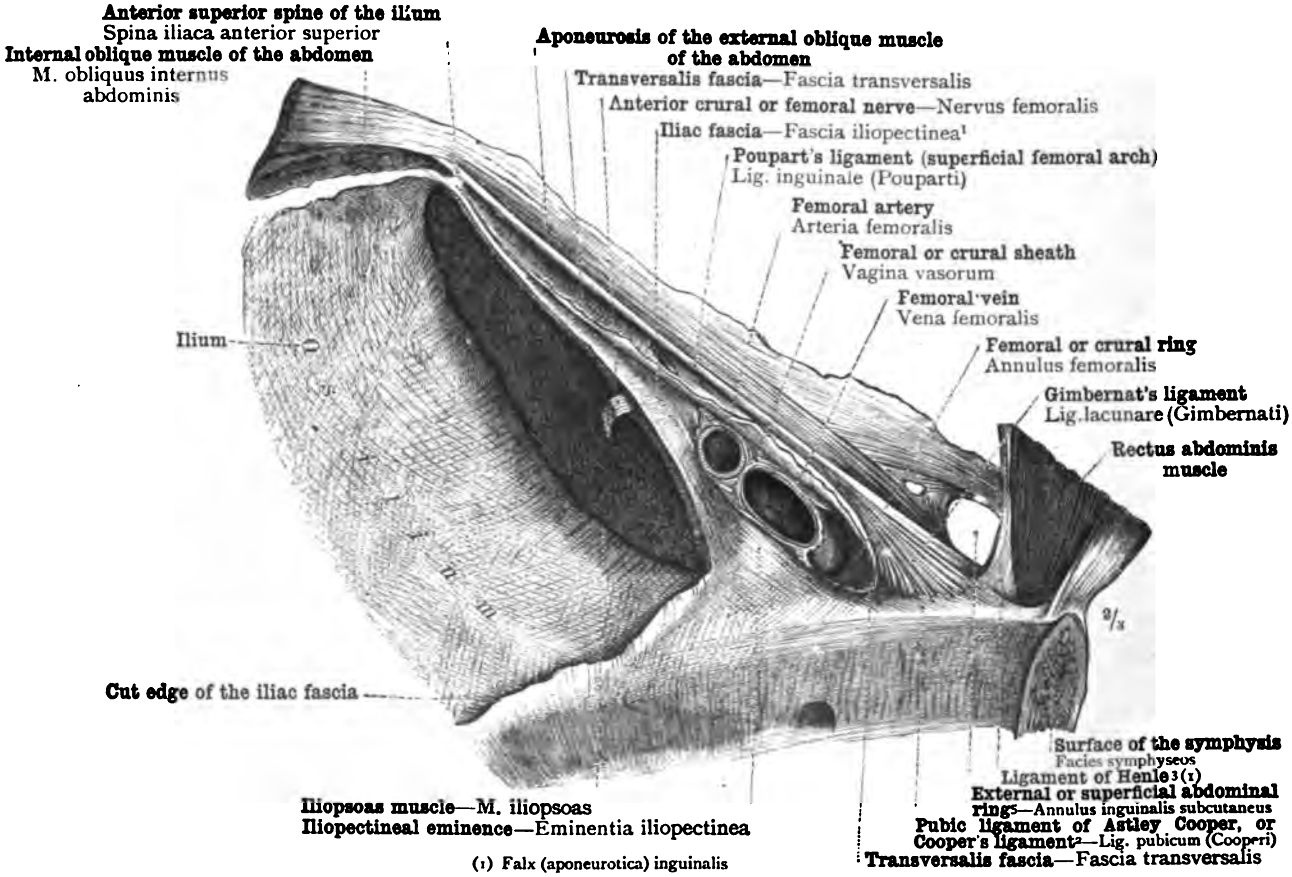


FIG. 639—LACUNA MUSCULORUM ET LACUNA VASORUM, ILIAC COMPARTMENT AND VASCULAR COMPARTMENT. SEEN FROM BEHIND.


Anterior superior spine of the ilium
Spina iliaca anterior superior
Internal oblique muscle of the abdomen
M. obliquus internus abdominis
Aponeurosis of the external oblique muscle of the abdomen
Transversalis fascia—Fascia transversalis
Anterior crural or femoral nerve—Nervus femoralis
Iliac fascia—Fascia iliopectinea[1]
Poupart's ligament (superficial femoral arch)
Lig. inguinale (Pouparti)
Femoral artery
Arteria femoralis
Femoral or crural sheath
Vagina vasorum
Femoral vein
Vena femoralis
Femoral or crural ring
Annulus femoralis
Gimbernat's ligament
Lig. lacunare (Gimbernati)
Rectus abdominis muscle
Ilium
Ilium
2/3
Cut edge of the iliac fascia
Surface of the symphysis
Facies symphyseos
Ligament of Henle[3] (1)
External or superficial abdominal rings[5]—Annulus inguinalis subcutaneus
Pubic ligament of Astley Cooper, or Cooper's ligament[2]—Lig. pubicum (Cooperi)
Transversalis fascia—Fascia transversalis
Iliopsoas muscle—M. iliopsoas
Iliopectineal eminence—Eminentia iliopectinea
(1) Falx (aponeurotica) inguinalis

[1] *Fascia Iliopectinea.*—The author distinguishes by this name that portion of the *iliac fascia* (of English anatomists) which, covering the iliopsoas muscle as it passes beneath Poupart's ligament, forms the septum between the *iliac compartment* and the *vascular compartment* of the space beneath that ligament, and passing inwards behind the femoral vessels to form the posterior layer of the femoral or crural sheath becomes continuous with the *pubic portion of the fascia lata* of the thigh, or *pectineal fascia* (see description at foot of Fig. 598), p. 349. From the fact that this portion serves to connect the iliac with the pectineal fascia arises the name " iliopectineal fascia."—TR.

[2] *Pubic Ligament of Astley Cooper, or Cooper's Ligament.*—This name is given to a thickened bundle of transverse fibres at the upper part of the pectineal fascia along its attachment to the innermost portion of the iliopectineal line. The fibres are closely connected with, and in part derived from, Gimbernat's ligament.—TR.

[3] See note [1] to p. 387.

[4] See note [2] to p. 383.

[5] Or *external inguinal aperture.*

FIG. 640.—PARTS BENEATH POUPART'S LIGAMENT, THE CONTENTS OF THE LACUNA MUSCULORUM OR ILIAC COMPARTMENT AND LACUNA VASCULORUM OR VASCULAR COMPARTMENT, AND THEIR MUTUAL RELATIONS. LEFT SIDE; SEEN FROM BEHIND.

Lacuna musculorum, or iliac compartment.—Lacuna vasorum, or vascular compartment.

INDEX

TO THE

MYOLOGY

AND TO

THE SUPPLEMENT ON THE ANATOMY OF HERNIA

INDEX

TO THE MYOLOGY

AND TO THE SUPPLEMENT ON THE ANATOMY OF HERNIA

Certain names in this Index have an asterisk (*) prefixed; these, as more fully explained in the Translator's Preface, being terms that form part of the English nomenclature used in this work, but which are not commonly employed by English anatomists. To other names a dagger (†) is prefixed; these are Latin names used by the author in the original work, but not included in the official nomenclature of the "Anatomische Gesellschaft."

A.

Adminiculum lineæ albæ, 388, 389
Annulus femoralis, 389, 390
    inguinalis abdominalis, 275, 276, 344, 385, 387-389
        subcutaneus, 274, 349, 383, 385
Antagonists, 263
Aperture, inguinal, external, 349, 383, 385
        internal, 344, 385, 387-389
†Aponeuroses tendinum extensorum digitorum (manus), 331
†Aponeuroses tendinum extensorum digitorum (pedis), 373, 380
Aponeurosis (see also "Fascia"), 262
    dorsal, of the extensor tendons of the fingers, 329-331
        of the extensor tendons of the thumb, 331
        of the extensor tendons of the toes, 373, 380
    epicranial, 300, 302
    of the external oblique muscle of the abdomen, 274, 383, 385
    intercostal, anterior or external, 274
        posterior or internal, 280
    m. obliqui externi abdominis, 274, 383, 385
    occipitofrontal, 300, 302
    palmaris, 322, 332
    plantaris, 375, 376
    vertebral, 267
*Arch, axillary, 283
    of the soleus muscle, 363, 371, and note to p. 363
Arcus lumbocostalis lateralis [Halleri], 286
        medialis [Halleri], 286
    tendineus m. levatoris ani, 346
        solei, 363, 371
Armpit, the, 283
Axilla, the, 283

B.

Band, crucial, inferior, 334 and note
        superior, 334 and note
    iliotibial, 338, 340, 342
    oblique, 334 and note
    vaginal, inferior, 334 and note
        middle, 334 and note
        superior, 334 and note
Belly (of muscle), 262
Border, falciform, 349, 383
Buccal fat-pad, 290
Bursa or bursæ:
    of the aponeurotic expansion of the sartorius muscle, 356, 362 and note
    of the biceps flexor cruris muscle, inferior, 363 and note
    of the biceps flexor cruris muscle, superior, 342 and note
    bicipitogastrocnemial, 363 and note
    bicipitoradial, 316, 321 and note
    of the coracobrachialis muscle, 314 and note
    of the extensor carpi radialis brevior muscle, 331 and note

Bursa or bursæ:
    of the flexor carpi radialis muscle, 323 and note
    of the flexor carpi ulnaris muscle, 333 and note
    of the gastrocnemius muscle, inner head, 362 and note, 363, 369
    of the gastrocnemius muscle, outer head, 363 and note
    gluteofemoral, 342 and note
    of the hamular process, 297
    iliopectineal, 348 and note, 356
    of the iliopsoas tendon, 348 and note
    infrapatellar, deep, 366
        subcutaneous, 350
    of the infraspinatus muscle, 312 and note
    intermetacarpophalangeal, 330
    intermetatarsophalangeal, 380
    interosseous of the elbow, 321 and note
    intratendinous of the olecranon, 320 and note
    of the latissimus dorsi muscle, 314 and note
    of the lumbricalis muscle, 380 and note
    of the obturator internus muscle, 341 and note
    of the pectineus muscle, 347 and note, 370
    of the popliteus muscle, 363 and note
    prepatellar, subcutaneous, 350
        subfascial, 355
        subtendinous, 355
    propria of the sartorius muscle, 355 and note
    of the pyriformis muscle, 348 and note
    of the rectus femoris muscle, 348 and note
    of the semimembranosus muscle, 362 and note, 370
    of the sinus of the tarsus, 364
    of the sternohyoid muscle, 294 and note
    of the sternothyroid muscle, 294 and note
    subacromial, 312
    of the subscapularis muscle, 313 and note, 314
    subcutaneous of the acromion, 311
        of the calcaneum, 374
        of the chin, 282
        of the coccyx, 342
        of the fingers, dorsal, 327, 330
        of the index-finger, dorsal, 327
        of the internal condyle of the humerus, 320
        of the internal malleolus, 374
        of the laryngeal prominence, 282
        metacarpophalangeal, dorsal, 327, 330
        of the olecranon, 314, 320
        of the posterior superior spine of the ilium, 342
        of the sacrum, 342
        of the tubercle of the tibia, 355
    subdeltoid, 312
    subtendinous, 261
        of the olecranon, 320 and note
        of the tibialis anticus muscle, 378 and note
        of the tibialis posticus muscle, 379 and note
    of the tendo Achillis, 370 and note
    of the teres major muscle, 314 and note
    of the thyrohyoid muscle, 294

Bursa or bursæ:
  trochanteric, of the gluteus maximus muscle, 340 and note, 342
    of the gluteus medius muscle, anterior, 348 and note
    of the gluteus medius muscle, posterior, 342 and note
    of the gluteus minimus muscle, 348 and note
Bursa *vel* bursæ:
  anserina, 356, 362
  bicipitogastrocnemialis, 363
  bicipitoradialis, 316, 321
  cubitalis interossea, 321
  glutæofemoralis, 342
  iliaca subtendinea, 348
  iliopectinea, 348, 356
  infrapatellaris profunda, 366
    subcutanea, 350
  intermetacarpophalangeæ, 330
  intermetatarsophalangeæ, 380
  intratendinea olecrani, 320
  mucosa subtendinea, 261
  musculi bicipitis femoris inferior, 363
      superior, 342
    coracobrachialis, 314
    extensoris carpi radialis brevis, 331
    flexoris carpi radialis, 323
      ulnaris, 333
    gastrocnemii lateralis, 363
      medialis, 362, 363, 369
    infraspinati, 312
    latissimi dorsi, 314
    lumbricalis, 380
    obturatoris interni, 341
    pectinei, 347
    piriformis, 348
    poplitei, 363, 370
    recti femoris, 348
    sartorii propria, 355
    semimembranosi, 362, 370
    sternohyoidei, 294
    subscapularis, 313, 314
    tensoris veli palatini, 297
    teretis majoris, 314
    thyreohyoidei, 294
  musculorum lumbricalium pedis, 380
  præpatellaris subcutanea, 350
    subfascialis, 355
    subtendinea, 355
  sinus tarsi, 364
  subacromialis, 312
  subcutanea acromialis, 311
    calcanea, 374
    coccygea, 342
    epicondyli (humeri) medialis, 320
    malleoli medialis, 374
    olecrani, 314, 320
    præmentalis, 282
    prominentiæ laryngeæ, 282
    sacralis, 342
† spinæ iliacæ posterioris, 342
    tuberositatis tibiæ, 355
  subcutaneæ digitorum dorsales, 327, 330
    metacarpophalangeæ dorsales, 327, 330
  subdeltoidea, 311
  subtendinea m. tibialis anterioris, 378
      posterioris, 379
    olecrani, 320
  tendinis calcanei [Achillis], 370
  trochanterica m. glutæi maximi, 340, 342
      medii anterior, 348
        posterior, 342
      minimi, 348

C.

Canal, crural, 381-390
  femoral, 381-390
  Hunter's, 351, 356, 357, 360
  obturator, 346, 347, 357, 361, 389
*Canal, popliteal, 363 and note, 371
Canalis adductorius [Hunteri], 351
  femoralis, 381-390
  inguinalis, 381-390
  obturatorius, 346, 347, 357, 361, 389
† popliteus, 363, 371
Canals for the extensor tendons of the fingers, 331
Caput (musculi), 262
  commune, 263
Centrum tendineum, 286, 287
Chiasma tendinum, 335 and note
Chorda obliqua, 317
*Commissure of the tendons of the flexor sublimis digitorum, 325 and note
Compartment, iliac, 390
  vascular, 344, 349, 389, 390
Cord, spermatic, 274-276, 384, 385, 389
Cornu inferius (marginis falciformis), 349, 383
  superius (marginis falciformis), 349, 383
Corpus adiposum buccæ, 290
Cross-striated contractile substance, 260
Crura (see also "Pillars"):
  of the diaphragm, 286 and note, 345
Crus inferius annuli inguinalis, 349, 383
  superius annuli inguinalis, 349, 383

D.

Diaphragm, the, 286, 287
  costal portion, 281, 286, 287
  crura, 286 and note, 345
  sternal portion, 281, 286, 287
  vertebral portion, 286, 287
Diaphragma, 286, 287
  crus intermedium, 286, 345
    laterale, 286
    mediale, 286, 345
  pars costalis, 281, 286, 287
    lumbalis, 286, 287
    sternalis, 281, 286, 287
† oris, 294, 295

E.

Elementary constituents of muscle, 260, 261
Eminence, hypothenar, 322-324
  plantar, central, 375
    inner, 375
    outer, 375
  thenar, 322, 324
†Eminentiæ plantares, 375
Endomysium, 260, 261
Epimysium, 261
Expansion, aponeurotic, of the tendon of the sartorius muscle, 351 and note
Expansion, aponeurotic, of the tendon of the gracilis muscle, 351 and note

F.

Falx (aponeurotica) inguinalis, 387-390, and note to p. 387
Fascia (see also "Aponeurosis"), 264
  Abernethy's, 388 and note
  axillary, 282, 283
  bicipital, 315, 322, 327
  brachial, 264, 282, 314, 383
  buccopharyngeal, 302
  cervical, deep, 266, 267, 282, 291-293
  cremasteric, 382, note
  cremasterica (Cooperi), 382 and note, 383
  cribriform, 382
  of the dorsum of the foot, deep, 366
  of the dorsum of the hand, 327
  of the forearm, deep, 314, 320, 327, 332
  gluteal portion of the fascia lata, 266, 267
  iliac, 285, 346, 349, 383, 387, 389, 390 and note
  iliopectineal, 349, 383, 390 and note
  infraspinous, 266, 267
  intercolumnar, 382 and note, 383
  lata, 338, 339, 350, 355, 360, 382, 383
    iliac portion, 349, note
    pubic portion, 349, 383, 390 and note

Fascia of the latissimus dorsi muscle, 283
of the leg, deep, 354, 362, 364, 366, 368-370, 374
deep layer, 368, 369, 374
superficial layer, 368, 369, 374
lumbar, middle layer, 270, 271, 285, 286, 343, 345
superficial or posterior layer, 266-269, 273, 285, 342
masseteric, 291, note (see also "Fascia parotideomasseterica")
obturator, 288, 346
palmar, 322, 332
parotid, 291, note (see also "Fascia parotideomasseterica")
pectineal, 349, 383, 390
pectoral, 282, 283, 291
pelvic, white line of the, 346
plantar, 375, 376
prevertebral, 292
propria of Astley Cooper, 382, note
semilunar, 315, 322, 327
of the sole, deep, 375, 376
spermatic, 382 and note, 383
supraspinous, 267
temporal, 302, 303, 306
deep layer, 303, 306
superficial layer, 302, 303
of the thigh, deep, 338, 339, 350, 355, 360, 382, 383
triangular, 383 and note, 384, 385, 390
Fascia antibrachii, 314, 320, 327, 332
axillaris, 282, 283
brachii, 264, 282, 283, 314
buccopharyngea, 302
colli, 282, 291-293
coracoclavicularis, 282
cremasterica [Cooperi], 382 and note, 383
cribrosa, 382
cruris, 355, 362, 364, 366, 368-370, 374
dorsalis manus, 327
pedis, 366
† glutæa, 266, 267
iliaca, 285, 346, 386, 387, 389, 390
iliopectinea, 344, 389, 390
infraspinata, 266, 267
lata, 338, 339, 350, 355, 360, 382, 383
† lumbalis, 285 (see also notes to pp 267 and 285)
lumbodorsalis, 266-269, 273, 285, 342
† m. latissimi dorsi, 283
nuchæ, 266, 267
obturatoria, 288, 346
parotideomasseterica, 291, 300
pectinea, 349, 383, 390
pectoralis, 282, 283, 291
prævertebralis, 292
superficialis, 264
abdominis, 382
supraspinata, 267
temporalis, 302, 303, 306
lamina profunda, 303, 306
superficialis, 302, 303
transversalis, 275, 276, 285, 344, 385, 388, 390
Fasciculi of muscular fibres, 260, 261
transversi aponeurosis palmaris, 332
plantaris, 375
Fat-pad, buccal, 290
†Fibræ annulares, 334
† collaterales, 383
† cruciatæ, 334
intercrurales, 383
Fibres, intercolumnar, 383 and note
muscular, 260, 261
Fold (see also "Plica"):
of the axilla, anterior, 283
posterior, 283
epigastric, 386, 387, note
hypogastric, 386, 387, note
pubovesical, 386
semilunar, of Douglas, 275, 276, 387, 389
transverse vesical, 386
umbilical, external, 386, 387, note
median, 386, 387, note
Fold, urachal, 386, 387, note
Foramen quadratum, 286, 287
venæ cavæ, 286, 287
Fossa, antecubital, 322
† axillaris, 283
cubitalis, 322
iliopectinea, 350
ovalis, 274, 276, 349, 383
poplitea, 358
scarpæ major, 350
Fovea inguinalis lateralis, medialis, 386
supravesicalis, 386
†Foveola radialis, 327
Funiculus spermaticus, 274-276, 384, 385, 389
Furrow (see also "Sulcus"):
bicipital, inner, 315
outer, 326
of the forearm, radial, 322
ulnar, 322
plantar, inner, 375
outer, 375

G.

Galea aponeurotica, 300, 302
Groove (see also "Furrow" and "Sulcus"):
deltoideopectoral, 282
for the subclavian artery, 299

H.

Ham, the, 358
Head (of muscle), 262
common, 263
Hiatus adductorius, 356, 357, 360
aorticus, 286, 287
œsophageus, 286, 287
Hollow, bicipital, 321, note
Hypothenar, 322-324

I.

Inscriptio tendinea, 262
Inscriptiones tendineæ m. recti abdominis, 276, 385
Intersection, tendinous, 262
Intersections, tendinous, of the rectus abdominis muscle, 276, 385

J.

Juncturæ tendinum, 330

L.

Lacertus fibrosus, 315, 322, 327
Lacuna musculorum, 390
vasorum, 344, 349, 389, 390
Lamina profunda fasciæ, 264
superficialis fasciæ, 264
Layer, muscular, of the trunk:
appendicular, 284 and note
dorsal, deep, 284 and note
superficial, 284 and note
ventral, intercostal, 284 and note
subcostal, 284 and note
Ligament or ligaments (see also "Ligamentum"):
annular, of the ankle, anterior, 364, 366, 372, 373
external, 364, note, 372
internal, 370, 371, 374
superior, 366, 372
of wrist, anterior, 322, 324, 332, 334
posterior, 326-328, 330
arched, external, 286
internal, 286
of the bladder, superior false, or suspensory, 386, note
Cooper's, 344, 353, 390 and note
cricothyroid, middle, 294
femoral, 349, note
of the fingers, superficial transverse, 332
fundiform, of the penis, 382 and note
(of Retzius), 365 and note, 373

Ligament or ligaments:
  Gimbernat's, 344, 349, 389, 390
  of Henle, 387 and note, 388-390
  of Hesselbach, 385, 387 and note, 389
  Hey's, 349, note
  iliotibial, 338, 340, 342
  intermetacarpal, distal, anterior or palmar, 334
  intermetatarsal, plantar distal, 376, 378
  interosseous, of the forearm, 324, 325, 329
    of the leg, 365, 367
  lambdoideum, 364, 366, 372, 373
  metatarsal, transverse, 376, 378
  oblique (radio-ulnar), 317
  obturator, 345
  palpebral, internal, 300
  patellar, 353, 355, 356, 366, 367
  Poupart's, 274, 276, 344, 345, 349, 382, 383, 389, 390
  pterygomandibular, 297, 307
  pterygomaxillary, 297, 307
  pubic, of Astley Cooper, 344, 353, 390 and note
  sacrosciatic, anterior, 340, 341, 346
    great, 340, 341, 343
    posterior, 340, 341, 343
    small, 340, 341, 346
  stylohyoid, 292-294, 296
  suspensory, of the penis, 274, 276, 349, 382, 383
    "true" and "false," 382, note
  tarsal, internal, 300
  thyrohyoid, middle, 294
  of the toes, superficial transverse, 375
  transverse metacarpal, 334
  vaginal (of the fingers), 334-336, and note to p. 334
    of the toes, 376, 378
Ligamentum *vel* ligamenta:
  arcuatum externum, 286
    internum, 286
  brevia, 331, note
  capitulorum (ossium metacarpalium) transversa, 334
    (ossium metatarsalium) transversa, 376
  carpi dorsale, 326-328, 330
    transversum, 324, 334
    volare, 322, 332
  cricothyreoideum (medium), 294
  cruciatum cruris, 364, 366, 372, 373
† fundiforme pedis, 365, 373
    penis, 382
  inguinale [Pouparti], 274, 276, 344, 345, 349, 382, 383, 389, 390
    reflexum [Collesi], 383-385, 390, and note to p. 383
  interfoveolare [Hesselbachi], 385, 387 and note, 389
  intercostalia externa, 274
    interna, 280
  laciniatum, 370, 371, 374
  lacunare [Gimbernati], 344, 349, 389, 390
  longa, 331, note
  lumbocostale, 270, 271, 285, 286, 343, 345
  nuchæ, 267, 268
  palpebrale mediale, 300
  patellæ, 353, 355, 356, 366, 367
  pubicum [Cooperi], 344, 353, 390
  sacrospinosum, 340, 341, 346
  sacrotuberosum, 340, 341, 343
  stylohyoideum, 292-294, 296
  suspensorium penis, 274, 276, 349, 383
  transversum cruris, 366, 372
  umbilicale laterale, medium, 387
  vaginale digitorum (manus), 334-336
    (pedis), 376, 378
Linea alba, 274, 276, 383-385, 389
† arcuata, 346 and note
  semicircularis [Douglasi], 275, 276, 387, 389
  semilunaris [Spigeli], 276, 389
Line, white, of the pelvic fascia, 346

M.

Margo falciformis, 349, 383
Membrana hyothyreoidea, 294
  interossea antibrachii, 324, 325, 329
    cruris, 367
  obturatoria, 345
Membrane, costocoracoid, 282
  cricothyroid, 294
  interosseous, of the forearm, 324, 325, 329
    of the leg, 365, 367
  obturator, 345
  thyrohyoid, 294
†Mesotenon, 333 and note
Muscle or muscles (see also Latin names under "Musculus *vel* musculi"):
  of the abdomen, 274-276, 278, 279, 281
  abductor hallucis, 371, 374, 376
    indicis, 323, 324, 331, 336
    minimi digiti (manus), 323, 324, 334, 336
      (pedis), 364, 366, 372, 373, 376, 377
    pollicis brevis, 324, 334, 336
      longus, 326, 328-330, and note to p. 326
  accessorius ad sacrolumbalem, 268, 269, 272, 273, 343
  adductor brevis, 345, 351-353, 356, 357, 360
    longus, 345, 346, 350-353, 356, 357, 360
    magnus, 345 and note, 346, 351, 352, 354, 356-360
    minimus, 345 and note, 358-360
    obliquus hallucis, 378
      pollicis, note to p. 324
    pollicis, 324, 325, 334-336, and note to p. 324
    transversus hallucis, 378, 380
      pollicis, note to p. 324
  anconeus, 318, 319, 326, 328, 329
  antagonistic, of the arm, 263, 315-320
  attollens auriculam, 266, 300
  attrahens auriculam, 300
  auricularis anterior, 300
    posterior, 266, 302
    superior, 266, 300
  of the back, 266-273
  biceps flexor cruris, 352, 358-363
    cubiti, 314, 315, 317, 325
  bipenniform, 262
  brachialis anticus, 315-317, 319, 321, 325
  broad, 262
  buccinator, 297, 303, 304, 306, 307
  canine, 297, 300-304
  ceratopharyngeus, 296
  cervicalis ascendens, 268, 269, 272, 273
  chondroglossus, 296
  chondropharyngeus, 296
  circumflexus palati, 295, 297, 308
  coccygeus, 288, 347
  complexus, 267-279, 272, 273, 278, 308
  compressor naris, 301-303, and note to p. 301
  constrictor of the pharynx, inferior, 297
    middle, 293, 296
    superior, 297
  coracobrachialis, 314-317
  corrugator supercilii, 300, 301
  cremaster, 274-276, 384, 385
  cricothyroid, 294, 296
  crureus, 352-354, 356
  cucullaris, see "Muscle, trapezius"
  curvator coccygis, 288, 344, 346
  deltoid, 266, 269, 274, 275, 310, 317, 319
  depressor alæ nasi, 301-305, and note to p. 301
    anguli oris, 290, 293, 297, 300, 303, 306
    labii inferioris, 300, 302-304, 306
  digastric, 262, 292, 297, 298, 307, 308
  double-headed, 262
  elementary constituents, 260
  epitrochleo-anconeus, 320 and note

Muscle or muscles:
- extensor brevis digitorum pedis, 364 and note, 365, 367, 372, 373
  - hallucis, 364 and note, 365, 367, 372
  - pollicis, 326, 328-330, and note to p. 326
  - carpi radialis brevior, 317, 321, 326-329
    - longior, 317, 319, 321, 322, 326-329
    - ulnaris, 318, 325, 326, 328, 329
  - coccygis, 288
  - communis digitorum, 326-329
  - indicis, 326, 328-330
  - longus digitorum pedis, 364, 365, 367
    - hallucis, 364 and note, 365, 367
    - pollicis, 326, 328-330, and note to p. 326
  - minimi digiti, 326
  - ossis metacarpi pollicis, 326, 328-330, and note to p. 326
  - primi internodii pollicis, 326, 328-330, and note to p. 326
  - proprius hallucis, 364 and note, 365, 367
  - secundi internodii pollicis, 326, 328-330, and note to p. 326
- external oblique, of the abdomen, 266-269, 274-276, 278, 279, 384, 385
- of the face, 300-307
- of facial expression, difference between the author's grouping of these and that usual in England, note to p. 303
- flexor accessorius, 376-378
  - brevis digitorum pedis, 376
    - hallucis, 376-378
    - minimi digiti (manus), 324, 325, 334-336
      - (pedis), 374 and note, 376-378
    - pollicis, 324, 325, 334, 336, and note to p. 324
  - carpi radialis, 317, 322, 323, 325
    - ulnaris, 317-320, 322, 323, 325
  - longus digitorum pedis, 370, 371, 376, 377
    - hallucis, 370, 371, 376, 377
    - pollicis, 322, 324, 325, 336
  - perforans (manus), 324, 325, 331, 335, 336
    - (pedis), 370, 371, 376, 377
  - perforatus (manus), 317, 321-323, 325, 331, 335, 336
    - (pedis), 376
  - profundus digitorum, 324, 325, 331, 335, 336
  - sublimus digitorum, 317, 321-323, 325, 331, 335
- of the foot, 372-380
- of the forearm, 321-329
- forms of, 262
- frontalis, 300
- fusiform, 262
- gastrocnemius, 358-363, 368, 369
- gemellus inferior, 340 and note, 341, 343, 358, 359
  - superior, 340 and note, 341, 343, 358, 359
- general considerations, 259-264
- genioglossus, 295, 296, 307
- geniohyoglossus, 295, 296, 307
- geniohyoid, 294-296, 307
- gluteus maximus, 338-340, 342, 343, 360
  - medius, 340, 343, 345, 353
  - minimus, 341-343, 345, 353
- gracilis, 345, 346, 350, 351, 354, 360, 362
- of the hand, 330-336
- of the head, 295-297, 300-308
- of the head and neck, 289-308
- of the hip, 338-349
- Horner's, see "Tensor tarsi" and notes 3 and 4 to p. 301
- iliocostalis, see under "Musculus"
- iliacus, 344, 346, 347, 350
- iliopsoas, 344, 346-348, 350, 353, 354, 360, 361, 386, 390
- incisivus, inferior, 303, 304, 306
  - superior, 303, 304
- inferior lingual, 296

Muscle or muscles:
- infraspinatus, 312, 318, 319
- insertion, 261
- intercostal, external, 268, 271, 274, 276-280
  - internal, 275-281
- internal oblique, of the abdomen, 267-270, 274-276, 384, 385
- interosseous, dorsal, of the foot, 373-379
    - of the hand, 329, 331, 334-336
  - palmar, 334-336
  - plantar, 376, 379
- interspinales, 270-272, 279, 339
- intertransversales, 270-273, 299, 339, 343
- latissimus dorsi, 266, 267, 269, 277, 278, 317
- of the leg, 364-371
- levator anguli oris, 297, 300-304
    - scapulæ, 266, 267, 269, 277, 278, 293, 298, 319
  - ani, 288
  - coccygis, 288, 347
  - labii inferioris, 303, 304, 306
    - superioris alæque nasi, 300 and note, 301
      - proprius, 300 and note, 302
  - menti, 303, 304, 306
  - palati, 295, 297, 308
- lingualis inferior, 296
- longissimus, see under "Musculus"
- of the lower extremity, 337-380
- lumbricales (manus), 324, 326, 332, 336
  - (pedis), 376, 377
- masseter, 293, 302
  - deep portion, 303, 306, 308
  - superficial portion, 302, 306, 308
- of mastication, 306, 307
- multifidus spinæ, 270, 273, 343
- mylohyoid, 292-295, 297, 307
- of the neck, 290-299
- oblique, of the abdomen, external, 266-269, 274-276, 278, 279, 384, 385
  - internal, 267-270, 274-276, 384, 385
- obliquus capitis inferior, 270-272, 278, 279
  - superior, 268, 270-272, 278, 279, 308
- obturator externus, 341, 343, 345, 353, 356, 357, 359-361
  - internus, 340 and note, 341, 342, 344, 347, 358, 359
- occipitalis, 266, 278, 302
- occipitofrontalis, 300, 302
- omohyoid, 277, 292, 293, 314, 317, 319
- opponens minimi digiti (manus), 325, 334-336
    - (pedis), 364 and note, 372, 378
  - pollicis, 325, 334-336
- orbicularis oris, 303-305
  - palpebrarum, 300-302, and notes 3 and 4 to p. 301
    - pars lachrymalis, or lachrymal portion, see "Tensor tarsi" and notes 3 and 4 to p. 301
    - pars orbitalis, or orbital portion, 300, 301
    - pars palpebralis, or palpebral portion, 300, 301
- origin, 261
- palmaris brevis, 322, 332
  - longus, 332
- pectineus, 345, 347, 350-353, 357, 360, 361
- pectoralis major, 274, 275, 317
    - abdominal portion, 274
    - clavicular portion, 274, 275, 317
    - sternocostal portion, 274, 275, 278
  - minor, 274, 275, 278, 317
- penniform, 262
- peroneus brevis, 364-367, 371, 373
  - longus, 364, 366, 367, 379
  - tertius, 364, 367, 372
- platysma, 282, 290, 291, 300, 302, 306
- plantaris, 358-362, 368, 369, 371
- popliteus, 360-363, 366, 369-371
- pronator quadratus, 323-325, 333, 334
  - radii teres, 317, 322, 325, 327, 328

Muscle or muscles:
- psoas magnus, 286, 344-347, 350
  - parvus, 344
- pterygoid, external, 295, 307, 308
  - internal, 295, 307, 308
- pyramidalis nasi, 300, 301
- pyriformis, 340-347, 358, 359
- quadratus femoris, 340-343, 345, 346
  - labii superioris, 300, 302, and note to p. 300
  - lumborum, 339, 344, 345
  - menti, 300, 302-304, 306
- quadriceps extensor cruris, 350-353, 355, 360
- rectus abdominis, 275, 276, 278, 385, 387, 389, 390
  - capitis anticus major, 277, 293, 294, 298, 308
    - minor, 299, 308
    - lateralis, 271, 272, 279, 298, 299, 308
    - posticus (major and minor), 271, 272, 279, 308
  - femoris muscle, 343, 345, 350-353
- retrahens auriculam, 266, 300
- rhomboideus major, 267, 269, 319
  - minor, 267, 269, 319
- risorius, 290, 300, 303
- rotatores dorsi, 271-273
- sacrococcygeus anticus, 288, 344, 346
  - posticus, 288
- sacrolumbalis, see "Musculus iliocostalis"
- sacrospinalis, see "Musculus iliocostalis"
- sartorius, 345, 350, 351, 353-355, 362
- scalenus anticus, 277-279, 293, 298, 299
  - medius, 270, 277, 278, 293, 298, 299
  - pleuralis, 279
  - posticus, 268, 269, 277, 278, 298, 299
- semimembranosus, 351, 354, 358-363
- semispinalis, see under "Musculus"
  - colli, 270, 272, 273
- semitendinosus, 351, 354, 358, 360, 362
- serratus magnus, 267, 268, 274-278, 317, 319
  - posticus inferior, 267-269, 278, 343
    - superior, 267, 269, 278
- of the shoulder, 310-313
- soleus, 363, 369, 371
- spinalis, see under "Musculus"
  - cervicis, 268, 273
- splenius capitis, 266-269, 277, 278, 293, 308
  - colli, 267-269
- sternalis, 282
- sternocleidomastoid, 278, 292, 293, 308, 317
- sternohyoid, 281, 292-294
- sternomastoid, 278, 292, 293, 308, 317
- sternothyroid, 277, 281, 292, 293
- strap-shaped, 262
- structure, 260, 261
- stylohyoid, 278, 292, 297, 308
- stylopharyngeus, 293, 297, 308
- subclavius, 274, 275, 278, 299, 311, 314, 317
- subcostal, 280
- subcrureus, 354, 357
- subscapularis, 277, 313, 315-317
- supinator radii brevis, 317, 319, 321, 323-325, 327-329
  - longus, 317, 319, 321-323, 325-327, 329
- supraspinatus, 310, 312, 313, 319
- synergistic, 263
- temporal, 306-308
- tensor fasciæ femoris, 338, 345, 350, 351, 353
    - latæ, 338, 345, 350, 351, 353
  - palati, 295, 297, 308
  - tarsi, 301, 302, and notes 3 and 4, p. 301
  - vaginæ femoris, 338, 345, 350, 351, 353
- teres major, 266, 269, 311, 313, 316-319
- of the thorax, 274, 275, 277-283
- thyrohyoid, 277, 292-294, 296
- thyropharyngeus, 293, 294
- tibialis anticus, 364, 365, 367, 377, 378
  - posticus, 370, 371, 377, 379
- trachelomastoid, 268, 270, 272, 273, 278, 308
- transversalis abdominis, 269-271, 275, 276, 281, 385, 387, 389
  - cervicis, 268, 270, 272, 273
  - linguæ, 296

Muscle or muscles:
- transverse, of the tongue, 296
- transversus menti, 300, 304
  - nuchæ, 266, 302
- trapezius, 266, 269, 278, 292, 293, 308, 319
- triangularis menti, 290, 293, 297, 300, 303, 306
  - sterni, 281
- triceps extensor cubiti, 266, 310-320, 329
  - rotator femoris, 340, note
  - suræ, 368 and note, 369
- of the trunk, 265-288
- of the upper arm, 315-320
- of the upper extremity, 309-336
- vastus externus, 345, 352, 353, 356, 358-361
  - internus, 348, 350-354, 360, 361, 367
- zygomaticus major, 290, 297, 300, 302, 303
  - minor, 300 and note

Musculus *vel* musculi (see also English names under "Muscle or muscles"):
- abdominis, 274-276, 278, 279, 281
- abductor digiti quinti (manus), 323, 324, 334, 336
  - (pedis), 364, 366, 372, 373, 376, 377
  - hallucis, 371, 374, 376
  - pollicis brevis, 324, 334, 336
    - longus, 326, 328-330
- adductor brevis, 345, 351-353, 356, 357, 360
  - hallucis, 378, 380
  - longus, 345, 346, 350-353, 356, 357, 360
  - magnus, 345, 346, 351, 352, 354, 356-360
  - minimus, 345, 358-360
  - pollicis, 324, 325, 334-336
- anconæus, 318, 319, 326, 328, 329
- antibrachii, 321-329
- articularis genu, 354, 357
- articulationis humeri, 310-313
- auricularis anterior, 300
  - posterior, 266, 302
  - superior, 266, 300
- biceps, 262
  - brachii, 314, 315, 317, 325
  - femoris, 352, 358-363
- bipennatus, 262
- † biventer, 262
- brachialis, 315-317, 319, 321, 325
- brachii, 315-320
- brachioradialis, 317, 319, 321-323, 325-327, 329
- buccinator, 297, 303, 304, 306, 307
- caninus, 297, 300-304
- capitis, 295-297, 300-308
- ceratopharyngeus, 296
- chondroglossus, 296
- chondropharyngeus, 296
- coccygeus, 288, 347
- colli, 290-299
  - et capitis, 289-308
- constrictor pharyngis inferior, 297
  - medius, 293, 296
  - superior, 297
- coracobrachialis, 314-317
- † corrugator supercilii, 300, 301
- coxæ, 338-349
- cremaster, 274-276, 384, 385
- cricothyreoideus, 294, 296
- cruris, 364-371
- deltoideus, 266, 269, 274, 275, 310, 317, 319
- depressor septi, 303-305
- digastricus, 292, 297, 298, 307, 308
- dorsi, 266-273
- epicranius, 300, 302
- epitrochleo-anconæus, 320
- extensor carpi radialis brevis, 317, 321, 326-329
    - longus, 317, 319, 321, 322, 326-329
    - ulnaris, 318, 325, 326, 328, 329
  - digiti quinti proprius, 326
  - digitorum brevis, 364, 365, 367, 372, 373
    - communis, 326-329
    - longus, 364, 365, 367

Musculus *vel* musculi:
extensor hallucis brevis, 364, 365, 367, 372
longus, 364, 365, 367
indicis propius, 326, 328-330
pollicis brevis, 326, 328-330
longus, 326, 328-330
extremitatis inferioris, 337-380
superioris, 309-336
faciei, 300-307
femoris, 350-361
flexor carpi radialis, 317, 322, 323, 325
ulnaris, 317-320, 322, 323, 325
digiti quinti brevis (manus), 324, 325, 334-336
(pedis), 376, 378
digitorum brevis, 376
longus, 370, 371, 376, 377
profundus, 324, 325, 331, 335, 336
sublimis, 317, 321-323, 325, 331, 335, 336
hallucis brevis, 376-378
longus, 370, 371, 376, 377
pollicis brevis, 324, 325, 334, 336
longus, 322, 324, 325, 336
frontalis, 300
fusiformis, 262
gastrocnemius, 358-363, 368, 369
gemellus (inferior, superior), 340 and note, 341, 343, 358, 359
genioglossus, 295, 296, 307
geniohyoideus, 294-296, 307
glutæus maximus, 338-340, 342, 343, 360
medius, 340, 343, 345, 353
minimus, 341-343, 345, 353
gracilis, 345, 346, 350, 351, 354, 360, 362
Horneri, 301, 302
hyoglossus, 293, 296
iliacus, 344, 346, 347, 350
iliocostalis, 268, 269, 273, 343
cervicis, 268, 269, 272, 273
dorsi, 268, 269, 272, 273, 343
lumborum, 268, 269, 273, 343
iliopsoas, 344, 346-348, 350, 353, 354, 360, 361, 386, 390
incisivus labii inferioris, 303, 304, 306
superioris, 303, 304
infraspinatus, 312, 318, 319
† interfoveolaris, 275 and note, 385
intercostales externi, 268, 271, 274, 276-280
interni, 275-281
interossei dorsales (manus), 329, 331, 334-336
(pedis), 373-379
plantares, 376, 379
volares, 334-336
interosseus dorsalis I. (manus), 323, 324, 331, 336
interspinales, 270-272, 279, 339
intertransversarii anteriores, 299
posteriores, 271, 272, 299
† laterales, 270, 271, 273, 339, 343
† mediales, 271, 273, 339, 343
latissimus dorsi, 266, 267, 269, 277, 278, 317
levator ani, 288
scapulæ, 266, 267, 269, 277, 278, 293, 298, 319
veli palatini, 295, 297, 308
levatores costarum breves, 270, 271, 273
longi, 270, 271, 273
longissimus, 268, 273
capitis, 268, 270, 272, 273, 278, 308
cervicis, 268, 270, 272, 273
dorsi, 268-270, 272, 273, 343
longitudinalis inferior (linguæ), 296
longus capitis, 277, 293, 294, 298, 308
colli, 278, 293, 295, 298, 299
lumbricales (manus), 324, 330, 332, 336
(pedis), 376, 377
manus, 330-336
masseter, 293, 302
† profunda, 303, 306, 308
† pars superficialis, 302, 306, 308

Musculus *vel* musculi:
† masticatorii, 306, 307
mentalis, 303, 304, 306
multifidus, 270-273, 343
mylohyoideus, 292-295, 297, 307
nasalis, 301-304
pars alaris, 302-304
transversa, 302, 303
obliquus capitis inferior, 270-272, 278, 279
superior, 268, 270-272, 278, 279, 308
externus abdominis, 266-269, 274-276, 278, 279, 384, 385
internus abdominis, 267-270, 274-276, 384, 385
obturator externus, 341, 343, 345, 353, 356, 357, 359-361
internus, 340-342, 344, 347, 358, 359
occipitalis, 266, 278, 302
omohyoideus, 277, 292, 293, 314, 317, 319
opponens digiti quinti (manus), 325, 334-336
(pedis), 364, 372, 378
pollicis, 325, 334-336
orbicularis oculi, 300-302
pars lacrimalis [M. Horneri], 301, 302
orbitalis, 300, 301
palpebralis, 300, 301
orbicularis oris, 303-305
palmaris brevis, 322, 332
longus, 322
pectineus, 345, 347, 350-353, 357, 360, 361
pectoralis major, 274, 275, 317
pars abdominalis, 274
clavicularis, 274, 275, 317
sternocostalis, 274, 275, 278
pectoralis minor, 274, 275, 278, 317
pedis, 372-380
peronæus brevis, 364-367, 371, 373
longus, 364, 366, 367, 379
tertius, 364, 367, 372
piriformis, 340-347, 358, 359
plantaris, 358-362, 368, 369, 371
popliteus, 360-363, 366, 369-371
procerus, 300, 301
pronator quadratus, 323-325, 333, 334
teres, 317, 322, 325, 327, 328
psoas major, 286, 344-347, 350
minor, 344
pterygoideus externus, 295, 307, 308
internus, 295, 307, 308
pyramidalis, 275, 276, 385
quadratus femoris, 340-343, 345, 346
labii inferioris, 300, 302-304, 306
superioris, 300-302
caput angulare, 300, 301
infra-orbitale, 300, 302
zygomaticum, 300
quadratus lumborum, 339, 344, 345
plantæ, 376-378
quadriceps femoris, 350-353, 355, 360
rectus abdominis, 275, 276, 278, 385, 387, 389, 390
capitis anterior, 299, 308
lateralis, 271, 272, 279, 298, 299, 308
posterior (major, minor), 271, 272, 279, 308
femoris, 343, 345, 350-353
rhomboideus (major, minor), 267, 269, 319
risorius, 290, 300, 303
rotatores breves, 271-273
longi, 271-273
sacrococcygeus anterior, 288, 344, 346
posterior, 288
sacrospinalis, 268, 273, 285
sartorius, 345, 350, 351, 353-355, 362
scalenus anterior, 277-279, 293, 298, 299
medius, 270, 277, 278, 293, 298, 299
minimus, 279
posterior, 268, 269, 277, 278, 298, 299
semimembranosus, 351, 354, 358-363

Musculus *vel* musculi:
semispinalis, 270
capitis, 267-270, 272, 273, 278, 308
cervicis, 270, 272, 273
dorsi, 270, 273
semitendinosus, 351, 354, 358, 360, 362
serratus anterior, 268, 274-278, 317, 319
posterior inferior, 267-269, 278, 343
superior, 267, 269, 278
soleus, 363, 369, 371
spinalis, 268
cervicis, 268, 273
spinalis dorsi, 268, 273
splenius capitis, 266-269, 277, 278, 293, 308
cervicis, 267-269
sternalis, 282
sternocleidomastoideus, 278, 292, 293, 308, 317
sternohyoideus, 281, 292-294
sternothyreoideus, 277, 281, 292, 293
styloglossus, 292, 293, 296, 297, 308
stylohyoideus, 278, 292, 297, 308
stylopharyngeus, 293, 297, 308
subclavius, 274, 275, 278, 299, 311, 314, 317
subcostales, 280
subscapularis, 277, 313, 315-317
supinator, 317, 319, 321, 323-325, 327-329
supraspinatus, 310, 312, 313, 319
temporalis, 306-308
tensor fasciæ latæ, 338, 345, 350, 351, 353
veli palatini, 295, 297, 308
teres major, 266, 269, 311, 313, 316-319
minor, 311-314, 318, 319
thoracis, 274, 275, 277-283
thyreohyoideus, 277, 292-294, 296
thyreopharyngeus, 293, 294
tibialis anterior, 364, 365, 367, 377, 378
posterior, 370, 371, 377, 379
transversus abdominis, 269-271, 275, 276, 281, 385, 387, 389
linguæ, 296
menti, 300, 304
nuchæ, 266, 302
thoracis, 281
trapezius, 266, 269, 278, 292, 293, 308, 319
triangularis, 290, 293, 297, 300, 303, 306
triceps brachii, 310-320, 329
suræ, 368, 369
trunci, 265-288
unipennatus, 262
vastus intermedius, 352-354, 356
lateralis, 345, 352, 353, 356, 358-361
medialis, 348, 350-354, 360, 361, 367
zygomaticus, 290, 297, 300, 302, 303
Muscular fibres, 260, 261
Myology, general considerations, 259, 264

N.

Nuclei of the muscular fibres, 260

O.

Opening in adductor magnus for femoral vessels, 356, 357, 360
Opening (in the diaphragm), aortic, 286, 287
caval, 286, 287
œsophageal, 286, 287
Opening, saphenous, 274, 276, 349, 383
Orifice, inferior, of Hunter's canal, 356, 357, 360

P.

Pericranium, 300, 302, 303
Perimysium, 260, 261
externum, 261
Peritonæum parietale, 275, 386, 388
Peritoneum, parietal, 275, 386, 388
Pes anserinus, 351 and note
Pillar of the external or superficial abdominal ring:
lower or external, 349, 383
upper or internal, 349, 383
Pillars of the diaphragm, see "Diaphragm"
Platysma, 282, 290, 291, 300, 302, 306
myoides, 282, 290, 291, 300, 302, 306
Pleura, cervical, 279
Plica (see also "Fold"):
axillaris anterior, 283
posterior, 283
epigastrica, 386
hypogastrica, 275, 387
pubovesicalis, 386
umbilicalis lateralis, 386
media, 386
urachi, 386
vesicalis transversa, 386
Portion of the diaphragm, costal, 286, 287
sternal, 286, 287
vertebral, 286, 287
Pouch, inguinal, external, 386 and note
internal, 386 and note
middle, 386 and note
supravesical, 386 and note
Process, falciform, 346

R.

Raphe, median, of the mylohyoid muscle, 295
musculi mylohyoidei, 295
pterygomandibularis, 297, 307
Retinacula, 331, note
Retinaculum mm. peronæorum inferius, 364, 366, 372
superius, 372
of the peronei tendons, inferior, 364 and note, 366, 372
superior, see "Ligament, annular, of the ankle, external"
Ring, abdominal, external or superficial, 274, 349, 383, 385
internal or deep, 275, 276, 344, 385, 387-389
crural, 389, 390
femoral, 389, 390

S.

Sarcolemma, 260, 261
Segment, thoracic, diagram of, 284 and note
Septum, crural, 383, 388
femoral, 383, 388
femorale [Cloqueti], 383, 388
intermuscular, 264
of the forearm, 329
peroneal, anterior, 364, 367
posterior, 370, 371
of the thigh, external, 360
internal, 350, 351, 353, 356, 357, 359
of the upper arm, external, 311, 319
internal, 314-317, 319
intermusculare, 264
femoris laterale, 360
mediale, 350, 351, 353, 356, 357, 359
fibulare anterius, 364, 367
posterius, 370, 371
humeri laterale, 311, 319
mediale, 314-317, 319
Sheath of the rectus abdominis muscle, 274-276, 281, 285, 385, 389
Sheath or sheaths, synovial, of the tendon or tendons (see also "Vagina *vel* vaginæ—tendinis *vel* tendinum"):
of the extensor carpi radialis longior and extensor carpi radialis brevior muscles, 330
of the extensor carpi ulnaris muscle, 330
of the extensor communis digitorum and extensor indicis muscles, 330
of the extensor longus digitorum pedis and peroneus tertius muscles, 372
of the extensor longus *vel* proprius hallucis muscle, 372
of the extensor longus pollicis muscle, 330
of the extensor mimimi digiti muscle, 330

Sheath of the extensor ossis metacarpi pollicis and extensor primi internodii pollicis muscles, 330, 333
  of the extensor secundi internodii pollicis muscle, 330
  of the flexor carpi radialis muscle, 333
  of the flexors of the fingers, 333
  of the flexor longus digitorum pedis muscle, 378
  of the flexor longus hallucis muscle, 378
  of the flexor longus pollicis muscle, 333
  of the flexor sublimis and flexor profundus digitorum muscles, 333
  of the peroneus longus muscle (plantar region), 378
  of the peroneus longus and peroneus brevis muscles, 372, 378
  of the tibialis anticus muscle, 372
  of the tibialis posticus muscle, 378
"Snuff-box, anatomical," 326 and note, 327
*Space, axillary, external, 312 and note, 313
* internal, 312 and note, 313
  Mohrenheimer's, 274, 282, 293
  popliteal, 358
  scalene, 277 and note
Stratification of the muscles of the trunk and their associated fasciæ, 284, 285
Structure of muscle, 260, 261
"Sucking-pad," 290, note
Sulci plantares, 375
Sulcus (see also "Furrow" and "Hollow"):
† antibrachii radialis, 322
    ulnaris, 322
  bicipitalis lateralis, 326
    medialis, 315
† deltoideopectoralis, 282
  subclaviæ, 299
Synergists, 263

T.

Tabatière anatomique, 326, note, 327
Tendo, 261, 262
  Achillis, 366, 367, 369, 371
  calcaneus [Achillis], 366, 367, 369, 371
Tendon, 261, 262
  common, for the origin of the palmar muscles of the forearm, 317, 321, 325
  of diaphragm, central, 286, 287
    cordiform, 286, note [2]
    trefoil, 286, note[2]
  infrapatellar, 353, 355, 356, 366, 367
Thenar, 322, 324
Tractus iliotibialis [Maissiati], 338, 340, 342
Triangle, infraclavicular, 274, 282, 293
  of Petit, 266, 267
  Scarpa's, 350
Trigonum deltoideopectorale, 274, 282, 293
  femorale, 350
  lumbale [Petiti], 266, 267

V.

Vagina musculi recti abdominis, 274-276, 281, 285, 385, 389
Vagina *vel* vaginæ—tendinis *vel* tendinum:
  digitales (manus), 333
  m. extensoris carpi ulnaris, 330
      digiti quinti, 330
      digitorum pedis longi, 372
      hallucis longi, 372
      pollicis longi, 330
† m. flexoris carpi radialis, 333
      digitorum (pedis) longi, 378
      hallucis longi, 378
      pollicis longi, 333
  m. peronæi longi plantaris, 378
  m. tibialis anterioris, 372
      posterioris, 378
  mm. abductoris longi et extensoris brevis pollicis, 330, 333
  mm. extensorum carpi radialium, 330
  mm. extensoris digitorum communis et extensoris indicis, 330
  mm. flexorum communium, 333
  mm. peronæorum communis, 372, 378
Venter (musculi), 262
Vincula of the extensor tendons of the fingers, 330, 331 and note
    of the toes, 380
  tendinum (digitorum manus), 331
    (digitorum pedis), 380
Vinculum subflavum, 331, note

Wall of the axilla, anterior, 283
    posterior, 283
White line of the pelvic fascia, 346

BILLING AND SONS, LTD., PRINTERS, GUILDFORD.

AN ATLAS
OF
HUMAN ANATOMY
FOR STUDENTS AND PHYSICIANS

BY

CARL TOLDT, M.D.
PROFESSOR OF ANATOMY IN THE UNIVERSITY OF VIENNA

ASSISTED BY

PROFESSOR ALOIS DALLA ROSA, M.D.

Translated from the Third German Edition and adapted to English and American and International Terminology

BY

M. EDEN PAUL, M.D. BRUX., M.R.C.S., L.R.C.P.

FOURTH SECTION
E. SPLANCHNOLOGY
(FIGURES 641 TO 932 AND INDEX)

NEW YORK
REBMAN COMPANY
10, WEST 23RD STREET, CORNER OF FIFTH AVENUE
LONDON AGENTS: REBMAN, LIMITED
129, SHAFTESBURY AVENUE, CAMBRIDGE CIRCUS, W.C.
1904

GENERAL TABLE OF CONTENTS

Part I.

A. **The Regions of the Human Body** (Figs. 1 to 5).

B. **Osteology** (Figs. 6 to 377). With Index.

Price, bound in cloth, **$2.50** net. ☞ [*Ready.*

Part II.

C. **Arthrology** (Figs. 378 to 489). With Index.

Price, bound in cloth, **$1.75** net. ☞ [*Ready.*

Part III.

D. **Myology,** with a Supplement on the Anatomy of Hernia (Figs. 490 to 640). With Index.

Price, bound in cloth, **$2.50** net. ☞ [*Ready.*

Part IV.

E. **Splanchnology** (Figs. 641 to 932). With Index.

Price, bound in cloth, **$2.75** net. ☞ [*Ready.*

Part V.

F. **Angeiology** (Figs. 933 to 1,123). With Index.

Price, bound in cloth, **$3.75** net.

Part VI.

G. **Neurology** (Figs. 1,124 to 1,333).

H. **The Organs of the Senses** (Figs. 1,334 to 1,505). With Index.

Price, bound in cloth, **$4.75** net.

The six demy 4to. volumes complete, bound in cloth, **$18 net.**

All rights reserved.
Entered at Stationers' Hall

SPLANCHNOLOGIA

SPLANCHNOLOGY

SPLANCHNOLOGY—GENERAL CONSIDERATIONS

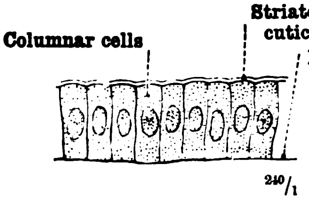


FIG. 641.—COLUMNAR, OR CYLINDER, EPITHELIUM.

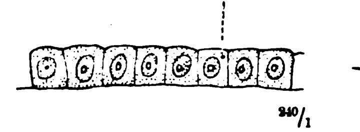


FIG. 642.—CUBICAL EPITHELIUM.

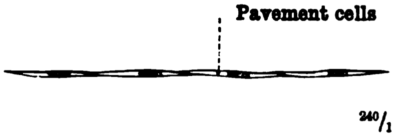


FIG. 643.—PAVEMENT EPITHELIUM.

SIMPLE EPITHELIUM[1] IN VERTICAL SECTION.

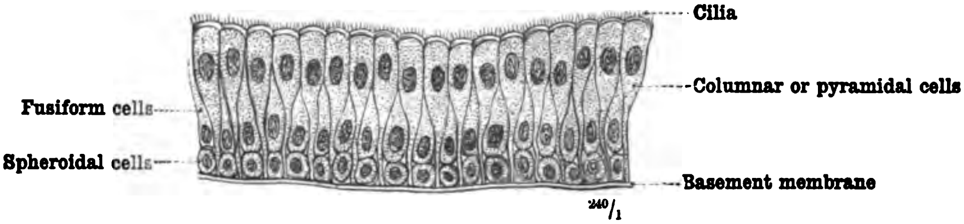


FIG. 644.—TRANSITIONAL[1] COLUMNAR CILIATED EPITHELIUM IN VERTICAL SECTION.

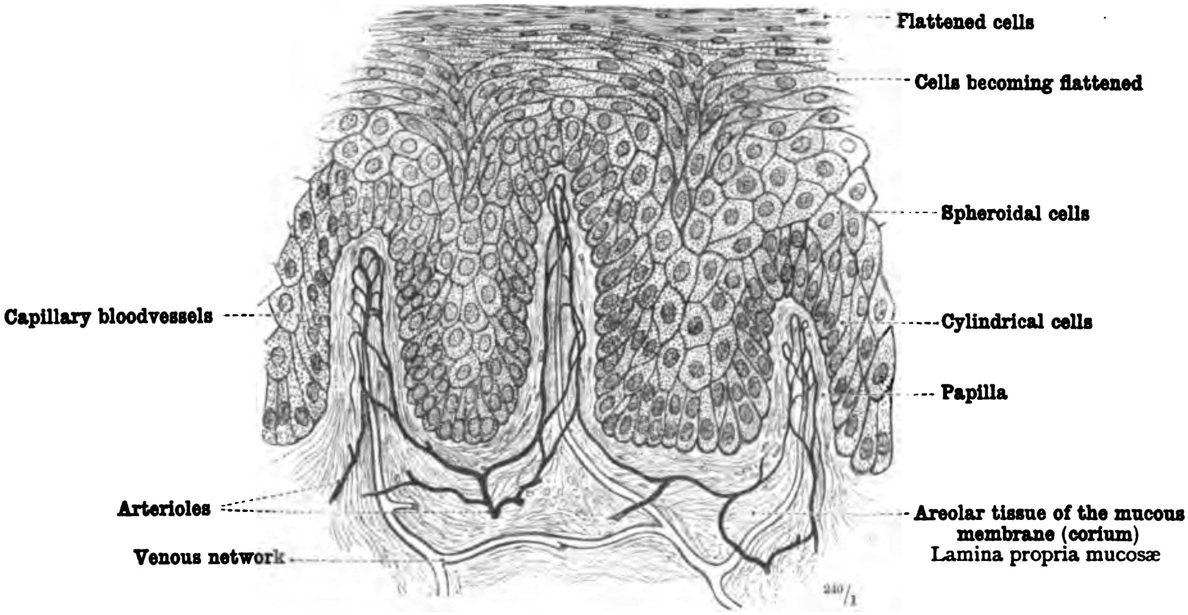


FIG. 645.—STRATIFIED EPITHELIUM[1] IN VERTICAL SECTION (MUCOUS MEMBRANE OF THE LOWER LIP).

The bloodvessels of the mucous membrane have been artificially injected.

---

[1] *Classification of Epithelia.*—An epithelium consisting of a single layer of cells is called a *simple* epithelium, in contradistinction to a *stratified* epithelium, which consists of numerous layers of cells. Where two or three layers of cells only are found, the cells nearer the basement membrane being usually smaller, and dovetailed among the bases of the superficial cells, the epithelium is called *transitional.* Transitional and stratified epithelium are grouped together as *compound* epithelia.—TR.

Epithelium.

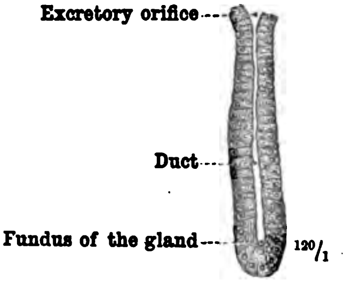


FIG. 646.—SIMPLE TUBULAR GLAND.

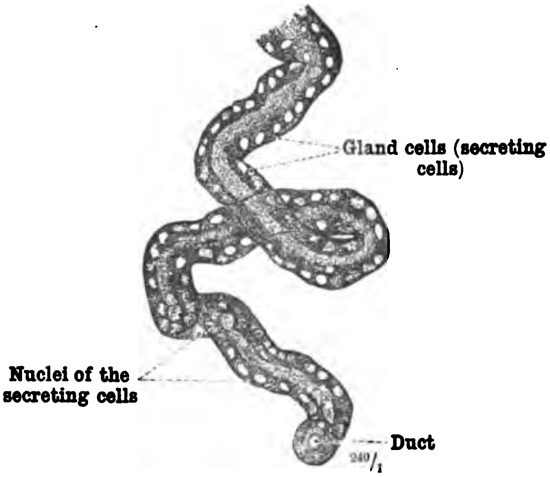


FIG. 647.—CONVOLUTED TUBULAR GLAND.

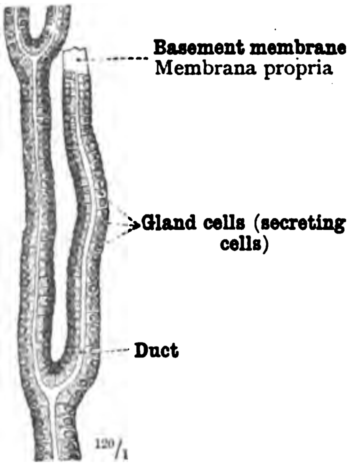


FIG. 648.—BRANCHED TUBULAR GLAND.

GLANDULÆ TUBULOSÆ—TUBULAR GLANDS.

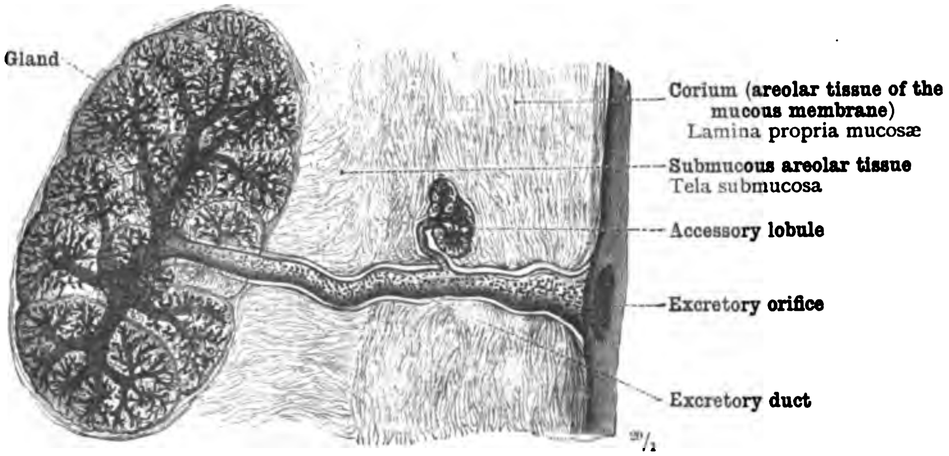


FIG. 649.—RACEMOSE OR ACINOUS GLAND (GLANDULA ALVEOLARIS SIMPLEX[1]), THE DUCTS OF WHICH HAVE BEEN INJECTED (LABIAL GLAND).

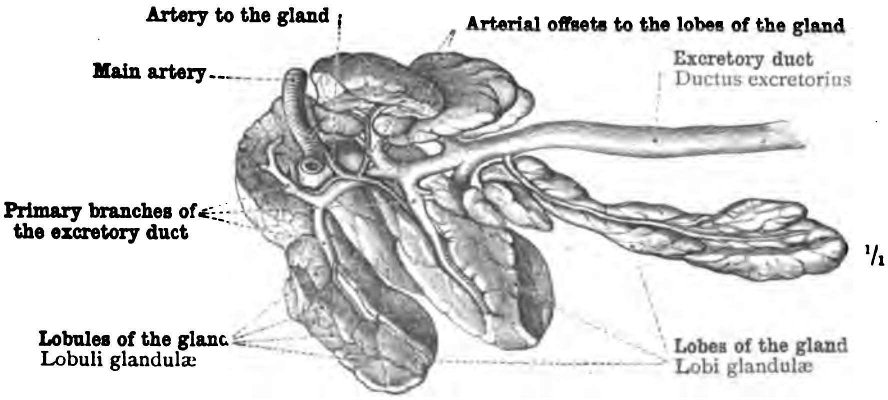


FIG. 650.—RACEMOSE OR ACINOUS GLAND (GLANDULA ALVEOLARIS COMPOSITA[1]), THE LOBES OF WHICH HAVE BEEN ARTIFICIALLY ISOLATED AND DRAWN APART (THE SUBMAXILLARY GLAND).

---

[1] Though the labial gland shown in Fig. 649 is called by the author glandula alveolaria *simplex*, and the submaxillary gland shown in Fig. 650 glandula alveolaria *composita*, both are *compound glands* according to the English terminology, in which a gland is regarded as *simple* only when it consists of a single, unbranched cavity, tubular or saccular, as the case may be.—TR.

Glandulæ—Glands.

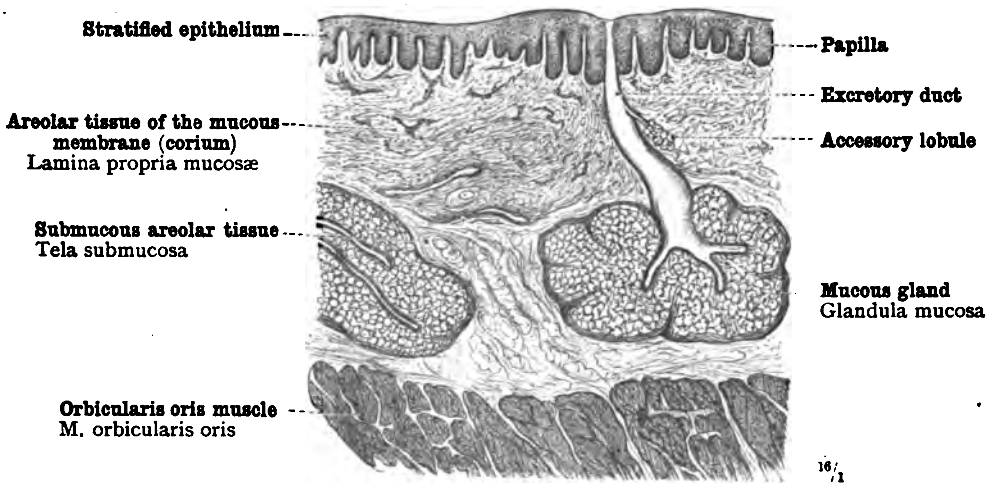


FIG. 651.—MUCOUS MEMBRANE, WITH PAPILLÆ, STRATIFIED EPITHELIUM, AND RACEMOSE GLANDS, IN VERTICAL SECTION (MUCOUS MEMBRANE OF THE LOWER LIP).

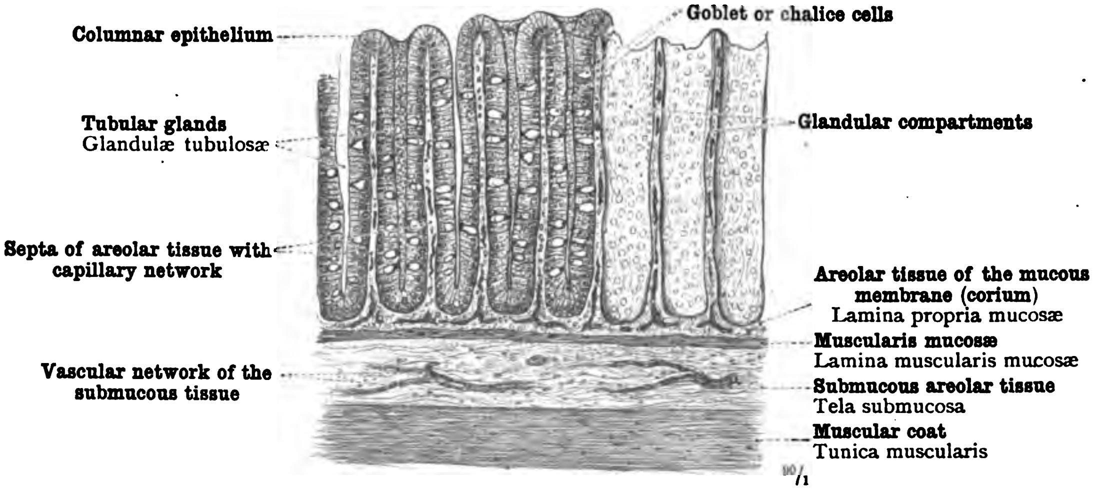


FIG. 652.—MUCOUS MEMBRANE WITH COLUMNAR EPITHELIUM AND TUBULAR GLANDS IN VERTICAL SECTION (MUCOUS MEMBRANE OF THE LARGE INTESTINE).

On the right side of the preparation three of the glands have fallen out, bringing into view the areolar tissue of the mucous membrane (corium) with its compartments for the glands.

Tunica mucosa—Mucous membrane.

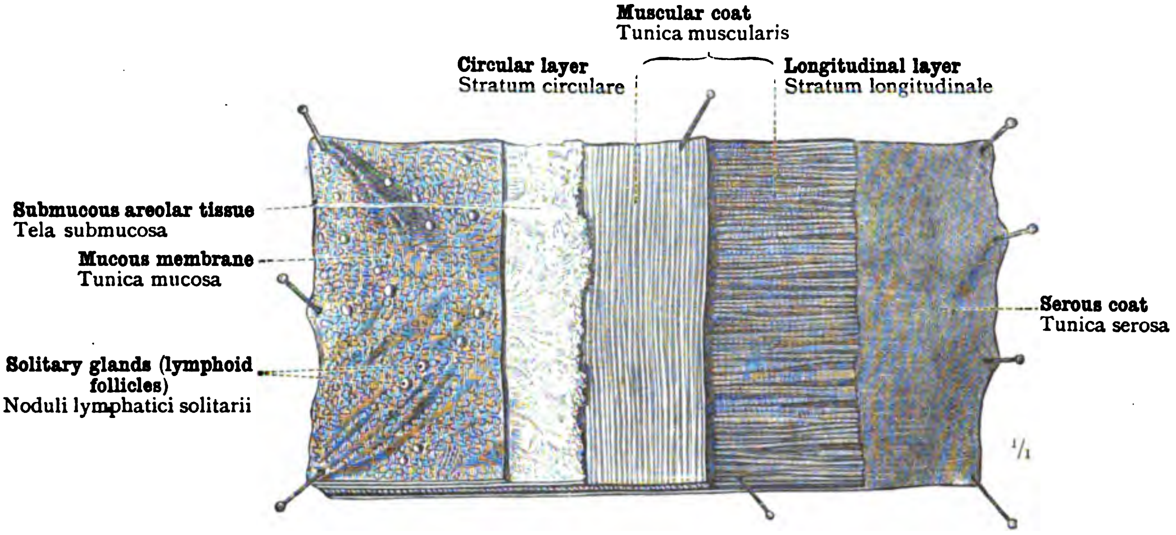


FIG. 653.—THE LAYERS OF THE INTESTINAL WALL SHOWN BY THE REMOVAL OF THE SUCCESSIVE COATS IN A PORTION STRETCHED OUT FLAT.

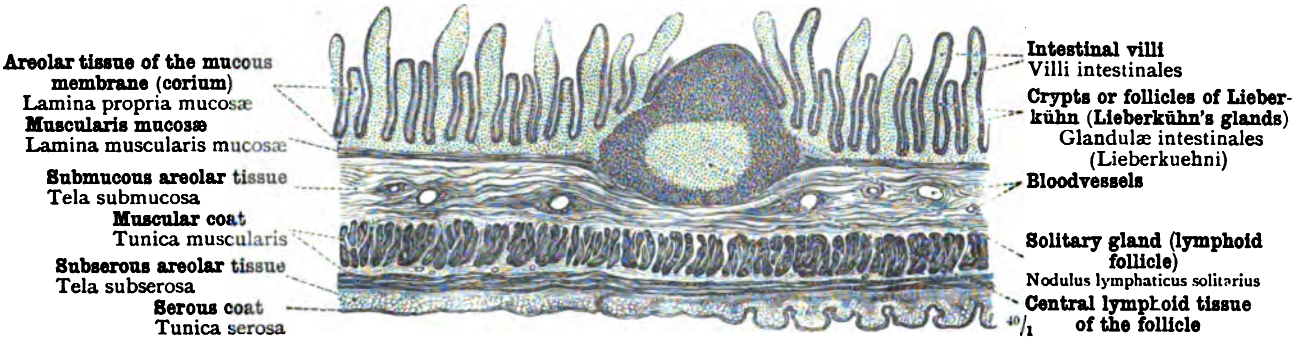


FIG. 654.—VERTICAL SECTION THROUGH THE WALL OF THE SMALL INTESTINE (INTESTINUM ILEUM) IN THE DIRECTION OF ITS LENGTH. NODULUS LYMPHATICUS SOLITARIUS, SOLITARY GLAND (LYMPHOID FOLLICLE). GLANDULÆ INTESTINALES (LIEBERKUEHNI), CRYPTS OR FOLLICLES OF LIEBERKÜHN (LIEBERKÜHN'S GLANDS).

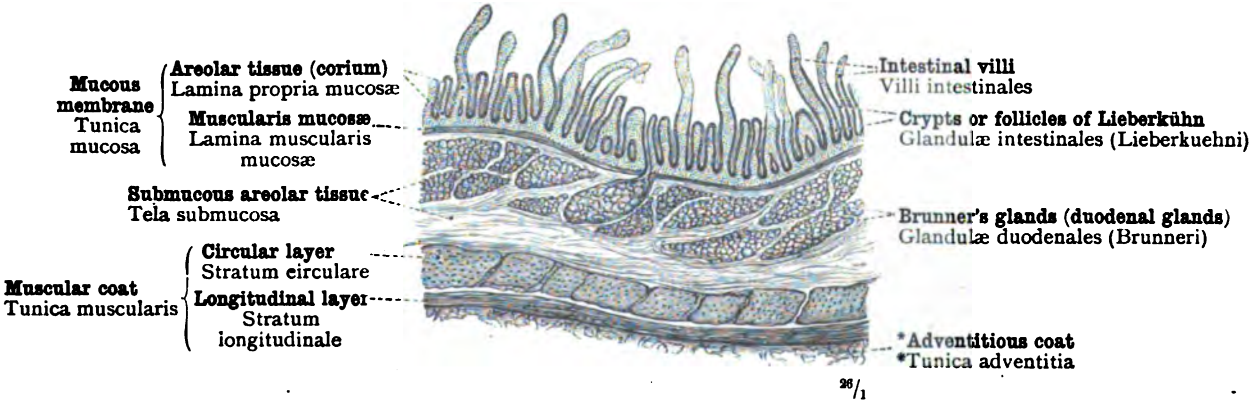


FIG. 655.—VERTICAL SECTION THROUGH THE WALL OF THE DUODENUM IN THE DIRECTION OF ITS LENGTH. GLANDULÆ DUODENALES (BRUNNERI), BRUNNER'S GLANDS (DUODENAL GLANDS).

The Layers of the Intestinal Wall.

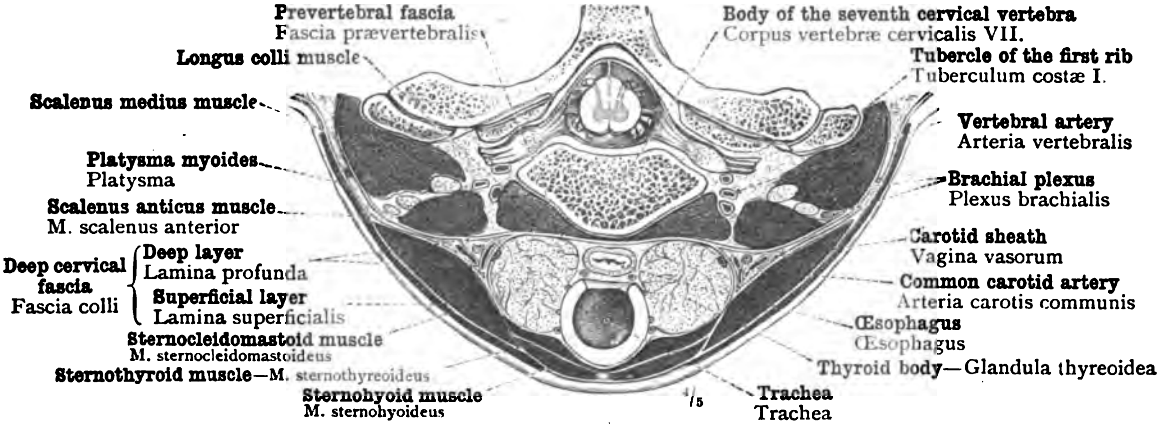


FIG. 656.—VISCUS, THE OUTER SURFACE OF WHICH IS THROUGHOUT CONNECTED WITH THE WALL OF THE BODY-CAVITY (CŒLOM) BY MEANS OF AREOLAR TISSUE. HORIZONTAL SECTION THROUGH THE LOWER PART OF THE NECK. SEMI-DIAGRAMMATIC.

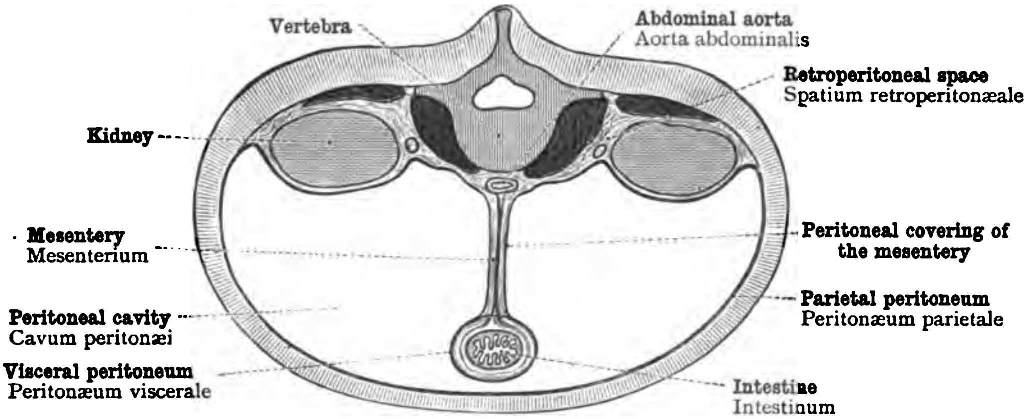


FIG. 657.—PORTION OF INTESTINE, FREELY MOBILE, THE OUTER SURFACE HAVING A SEROUS INVESTMENT (TUNICA SEROSA). CONNECTED WITH THE WALL OF THE BODY-CAVITY (CŒLOM) BY MEANS OF A FREE MESENTERY. PARIETAL AND VISCERAL LAYERS OF THE PERITONEUM. DIAGRAMMATIC.

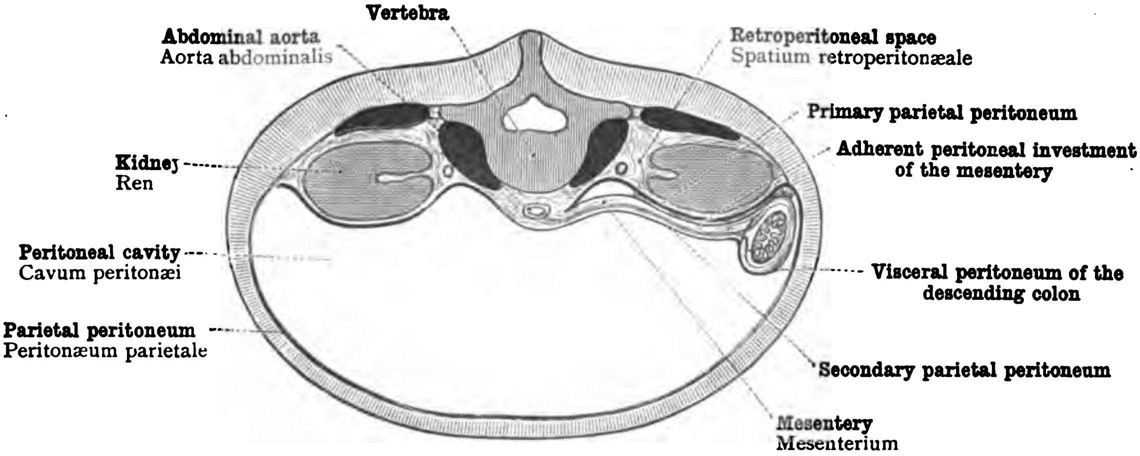


FIG. 658.—SECONDARY ADHESION TO THE BODY-WALL OF A PORTION OF INTESTINE, ORIGINALLY FREELY MOBILE. PRIMARY AND SECONDARY PARIETAL PERITONEUM. DIAGRAMMATIC.

Relations of the Viscera to the Body-Wall.

APPARATUS DIGESTORIUS

THE ORGANS OF DIGESTION

CEPHALIC AND CERVICAL PORTIONS
OF THE
DIGESTIVE ORGANS

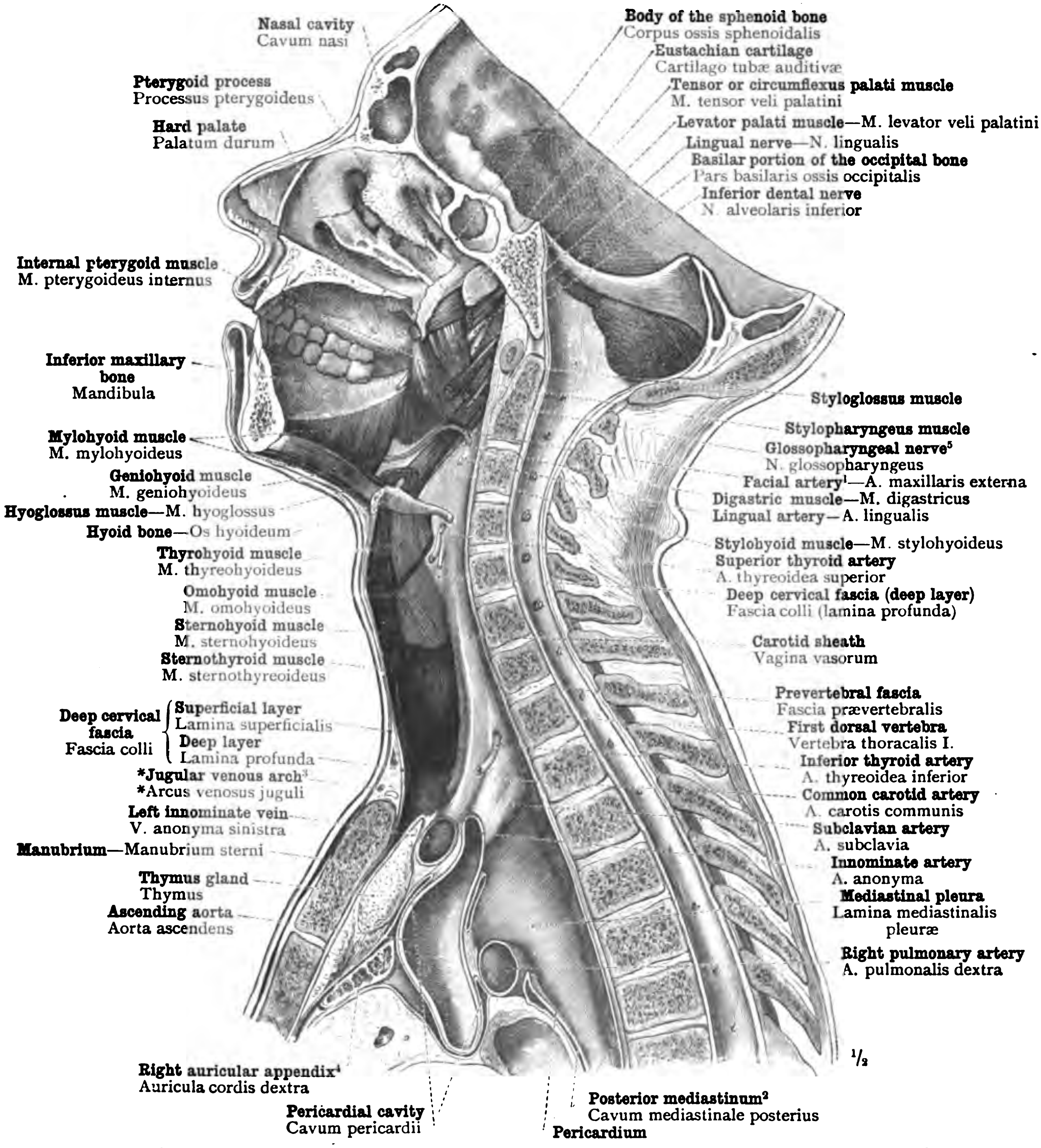


FIG. 659.—VISCERAL CAVITY (CŒLOM) OF THE HEAD AND NECK, AND ITS CONNEXION WITH THE VISCERAL CAVITY (CŒLOM) OF THE THORAX, IN MEDIAN SAGITTAL SECTION. FROM A WELL-HARDENED BODY, DIVIDED SAGITTALLY IN THE MEDIAN PLANE, WITH THE VISCERA REMOVED. RIGHT SIDE.

Cavum viscerale capitis et colli—Visceral cavity (cœlom) of the head and neck.

---

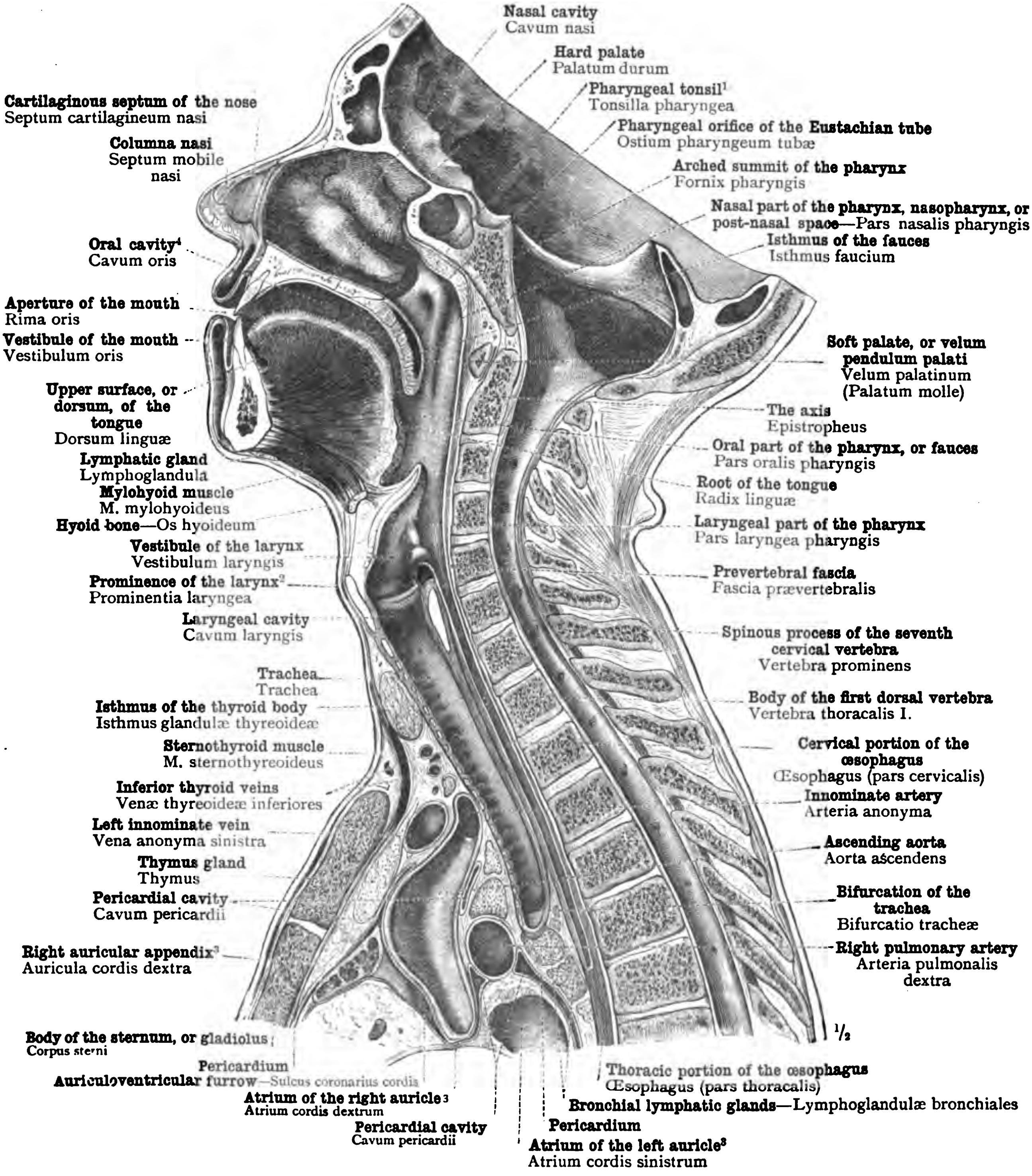
[1] *Facial Artery.*—Quain gives *external maxillary* and Macalister *external mandibular* as an alternative name for this artery, but it is so rarely in England called anything but the *facial* artery, that I have not thought it necessary to mention these synonyms in the text.—TR.

[2] *Mediastinum.*—The word *mediastinum* (*per medium tensum*, "stretched through the middle") properly denotes the bilaminar median partition between the right and left pleural cavities; the space between these layers, *cavum mediastinale*, should, strictly, be spoken of as the *mediastinal cavity* or *space*. In England, however, it is customary, when speaking of the various divisions of this cavity, to call them, by metonymy, simply *anterior mediastinum*, *middle mediastinum*, *posterior mediastinum*, and *superior mediastinum*.—TR.

[3] *Jugular Venous Arch.*—This term is not used by English anatomists. It is applied by Toldt to the communicating branch in the suprasternal space (*spatium interaponeuroticum suprasternale*, or Burns's space) between the two anterior jugular veins, and to those portions of the anterior jugular veins below the communicating branch, which run outwards on each side behind the origin of the sterno-cleidomastoid muscle to open into the lower end of the external jugular vein. A transverse venous arch is thus formed at the root of the neck between the external jugular veins.—TR.

[4] See note 3 to p. 411.

[5] Or *ninth cranial nerve*.



[1] Known also as *Luschka's gland* or *Luschka's tonsil* (third tonsil). This combines with the *tonsils proper* (amygdalæ, tonsillæ palatinæ) and the *lingual tonsil* (fourth tonsil, see note 4 to p. 416) to form a ring of lymphoid tissue round the commencement of the fauces, the continuity of which in the earlier stages of development is almost unbroken. It has been called by Waldeyer the *lymphoid faucial ring*.—Tr.

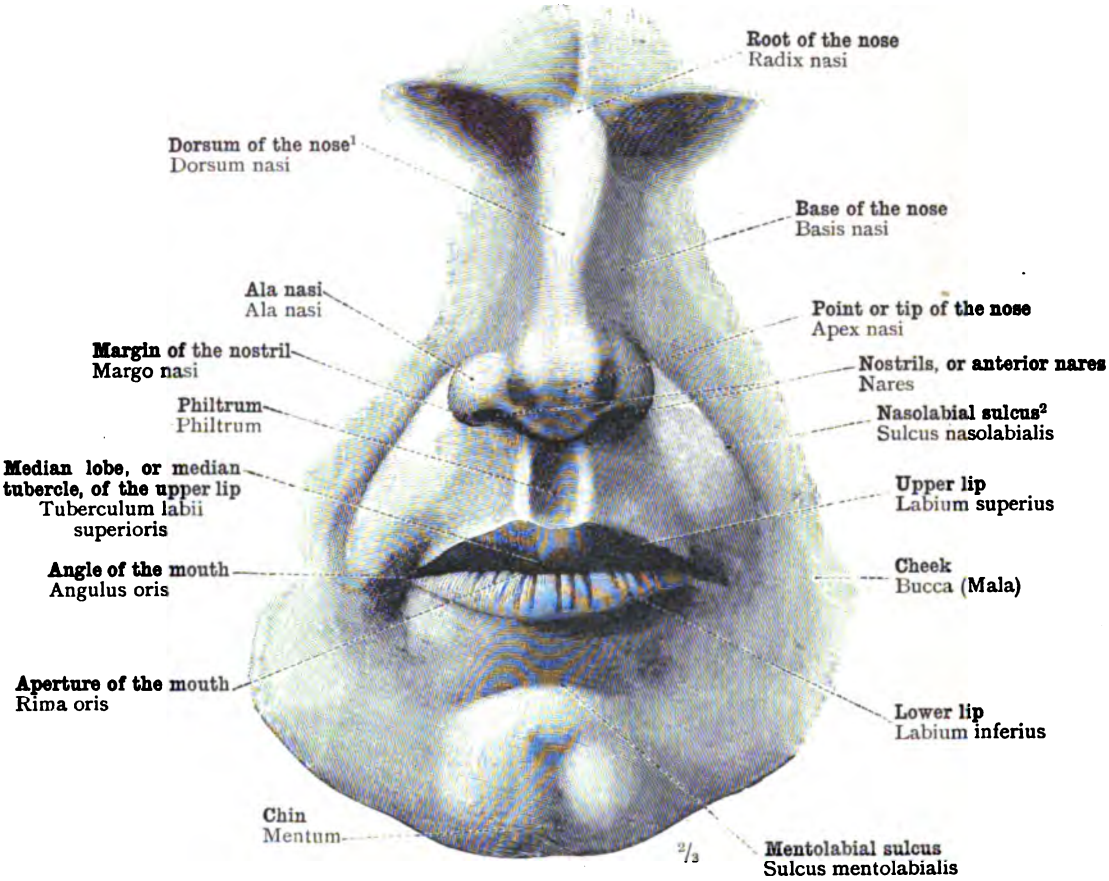
[2] Or *pomum Adami*.

[3] On the Continent, the signification of the term *auricula* is restricted to its proper and primitive meaning, denoting what in England is usually called the *auricular appendix*; whilst the main cavity, in England usually misnamed *auricle*, is by the author called *atrium*. As the name *auricle* was originally given to the *appendix* owing to its resemblance in shape to the triangular external ear with pointed tip of many animals, it is obvious that the Continental usage is to be preferred.—Tr.

[4] See note 3 to p. 414.

FIG. 660.—CEPHALIC AND CERVICAL VISCERA, AND THEIR PASSAGE INTO THE THORACIC CAVITY, IN MEDIAN SAGITTAL SECTION.

Viscera capitis et colli—Cephalic and cervical viscera.



[1] The upper or bony part of the dorsum of the nose is often spoken of as the *bridge*.—Tr.

[2] At its upper extremity the nasolabial sulcus is continued on to the side of the nose, above the ala, and is here termed the *alar sulcus*.—Tr.

Fig. 661.—Parts of the Face having Relation to the Viscera. From the Photograph of a Young Man.

Facies—The face.

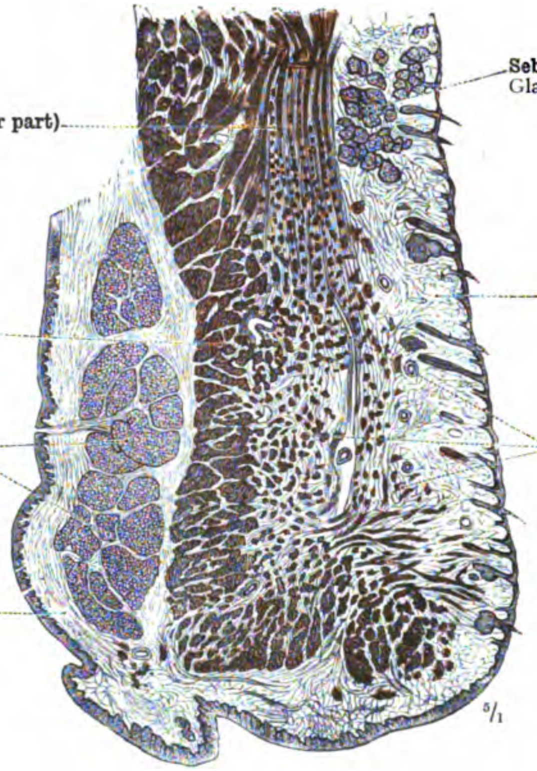
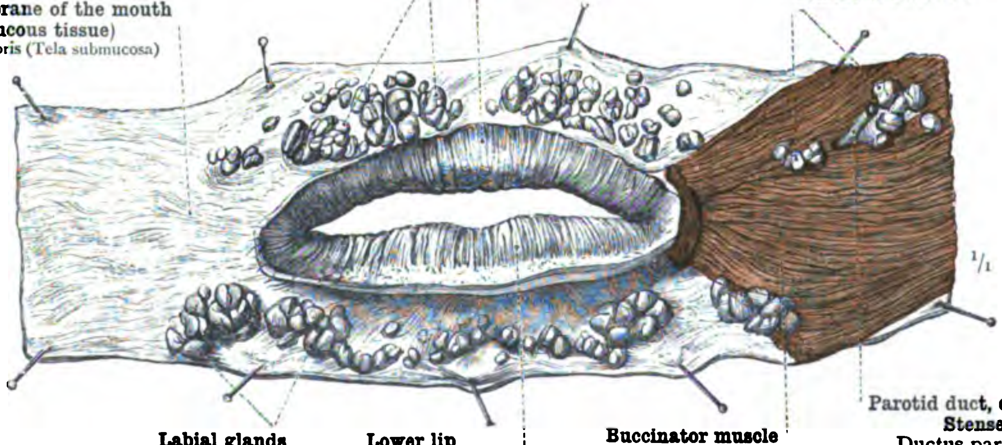


FIG. 662.—SAGITTAL SECTION THROUGH THE MIDDLE OF THE UPPER LIP, SHOWING ITS LAYERS, AND THE TRANSITION OF THE SKIN INTO THE MUCOUS MEMBRANE OF THE MOUTH.

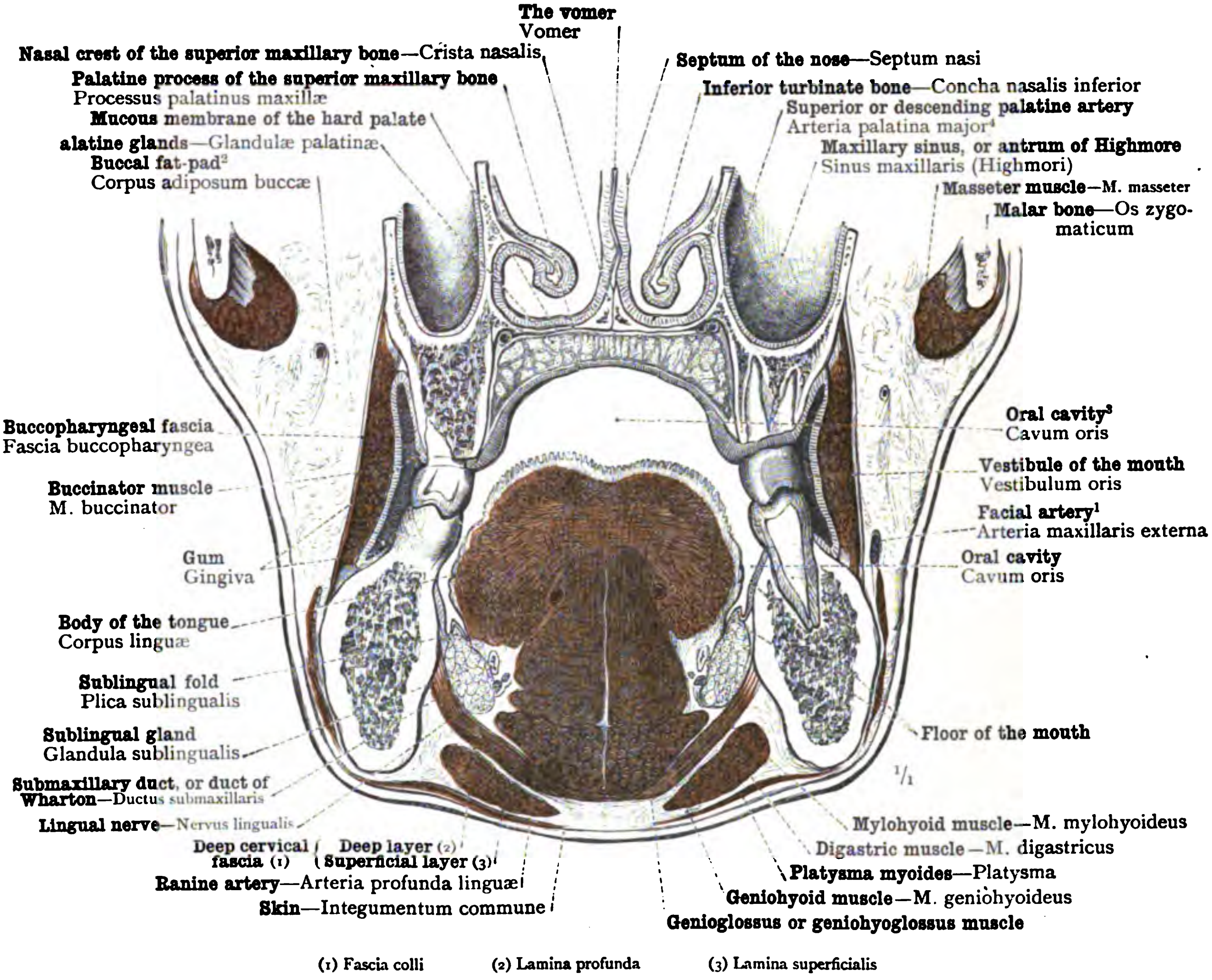


[1] Some of the *buccal glands* lie between the buccinator muscle and the mucous membrane and the cheek. Those here figured, however, larger than the rest, are between the buccinator and masseter muscles. They open by separate ducts near the last molar tooth, and are distinguished as *molar glands*.—TR.

FIG. 663.—MUCOUS GLANDS OF THE LIPS AND THE CHEEKS, LABIAL AND BUCCAL (MOLAR) GLANDS, LAID BARE BY THE REMOVAL OF THE SKIN, THE ORBICULARIS ORIS, AND THE ADJACENT MUSCLES. THE MUCOUS MEMBRANE IS SEEN FROM BEFORE.

On the left side the buccinator muscle has not been removed.

Labia oris—The lips.


The vomer
Vomer
Nasal crest of the superior maxillary bone—Crista nasalis
Palatine process of the superior maxillary bone
Processus palatinus maxillæ
Mucous membrane of the hard palate
alatine glands—Glandulæ palatinæ
Buccal fat-pad[2]
Corpus adiposum buccæ
Septum of the nose—Septum nasi
Inferior turbinate bone—Concha nasalis inferior
Superior or descending palatine artery
Arteria palatina major[4]
Maxillary sinus, or antrum of Highmore
Sinus maxillaris (Highmori)
Masseter muscle—M. masseter
Malar bone—Os zygomaticum
Buccopharyngeal fascia
Fascia buccopharyngea
Buccinator muscle
M. buccinator
Gum
Gingiva
Body of the tongue
Corpus linguæ
Sublingual fold
Plica sublingualis
Sublingual gland
Glandula sublingualis
Submaxillary duct, or duct of Wharton—Ductus submaxillaris
Lingual nerve—Nervus lingualis
Deep cervical fascia (1)
Deep layer (2)
Superficial layer (3)
Ranine artery—Arteria profunda linguæ
Skin—Integumentum commune
Oral cavity[3]
Cavum oris
Vestibule of the mouth
Vestibulum oris
Facial artery[1]
Arteria maxillaris externa
Oral cavity
Cavum oris
Floor of the mouth
1/1
Mylohyoid muscle—M. mylohyoideus
Digastric muscle—M. digastricus
Platysma myoides—Platysma
Geniohyoid muscle—M. geniohyoideus
Genioglossus or geniohyoglossus muscle
(1) Fascia colli
(2) Lamina profunda
(3) Lamina superficialis

[1] See note [1] to p. 410.

[2] Sometimes, but inappropriately, named the *sucking-pad*.—TR.

[3] A large cavity, such as is here represented, does not usually exist in the mouth. Normally when the mouth is closed the dorsum of the tongue is almost in apposition with the palate, being separated from it only by a narrow slit.—TR.

[4] *Arteria Palatina Major.*—This name is given by the author to the *superior* or *descending palatine artery, arteria palatina descendens*, after its emergence on to the inferior surface of the hard palate.—TR.

FIG. 664.—CORONAL SECTION THROUGH THE FACE BETWEEN THE FIRST AND SECOND MOLAR TEETH. WALLS OF THE ORAL CAVITY: UPPER WALL, OR ROOF OF THE MOUTH, CONSISTING OF THE HARD PALATE, PALATUM DURUM; LOWER WALL, OR FLOOR OF THE MOUTH, WITH THE SUBLINGUAL GLAND; LATERAL WALLS OF THE MOUTH, FORMED BY THE MUCOUS MEMBRANE OF THE CHEEKS. CAVUM ORIS, ORAL CAVITY, THE INTERIOR OF THE MOUTH (*see note* [3] *above*); VESTIBULUM ORIS, THE VESTIBULE OF THE MOUTH. THE DIAPHRAGMA ORIS, FORMED BY THE TWO MYLOHYOID MUSCLES AND STRENGTHENED BY THE TWO GENIOHYOID MUSCLES. SEEN FROM BEFORE.

Cavum oris—The oral cavity.

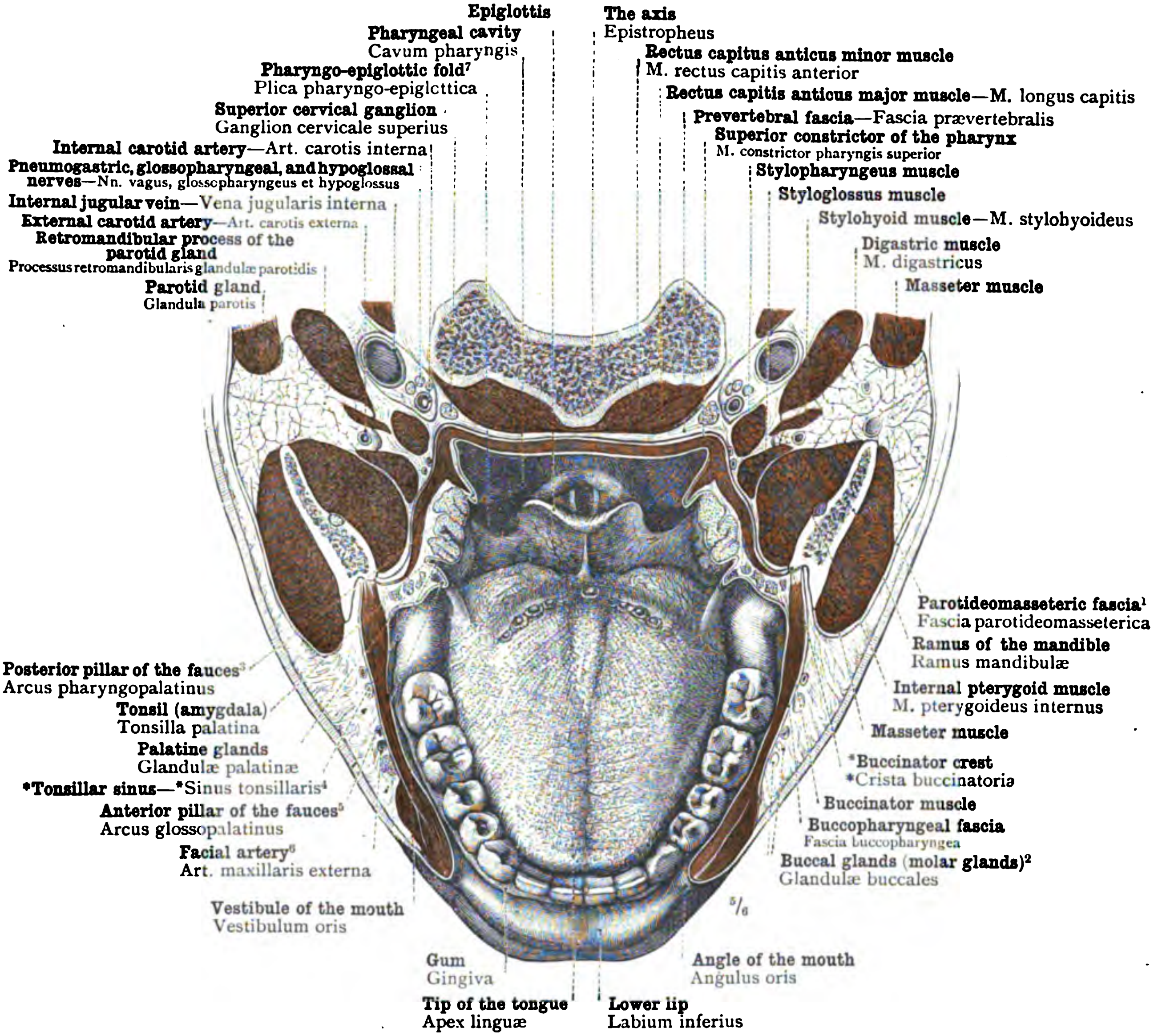

Epiglottis
Pharyngeal cavity
Cavum pharyngis
Pharyngo-epiglottic fold[7]
Plica pharyngo-epiglottica
Superior cervical ganglion
Ganglion cervicale superius
Internal carotid artery—Art. carotis interna
Pneumogastric, glossopharyngeal, and hypoglossal nerves—Nn. vagus, glossopharyngeus et hypoglossus
Internal jugular vein—Vena jugularis interna
External carotid artery—Art. carotis externa
Retromandibular process of the parotid gland
Processus retromandibularis glandulæ parotidis
Parotid gland
Glandula parotis
The axis
Epistropheus
Rectus capitus anticus minor muscle
M. rectus capitis anterior
Rectus capitis anticus major muscle—M. longus capitis
Prevertebral fascia—Fascia prævertebralis
Superior constrictor of the pharynx
M. constrictor pharyngis superior
Stylopharyngeus muscle
Styloglossus muscle
Stylohyoid muscle—M. stylohyoideus
Digastric muscle
M. digastricus
Masseter muscle
Parotideomasseteric fascia[1]
Fascia parotideomasseterica
Ramus of the mandible
Ramus mandibulæ
Internal pterygoid muscle
M. pterygoideus internus
Masseter muscle
*Buccinator crest
*Crista buccinatoria
Buccinator muscle
Buccopharyngeal fascia
Fascia buccopharyngea
Buccal glands (molar glands)[2]
Glandulæ buccales
Posterior pillar of the fauces[3]
Arcus pharyngopalatinus
Tonsil (amygdala)
Tonsilla palatina
Palatine glands
Glandulæ palatinæ
*Tonsillar sinus—*Sinus tonsillaris[4]
Anterior pillar of the fauces[5]
Arcus glossopalatinus
Facial artery[6]
Art. maxillaris externa
Vestibule of the mouth
Vestibulum oris
5/6
Gum
Gingiva
Tip of the tongue
Apex linguæ
Lower lip
Labium inferius
Angle of the mouth
Angulus oris

FIG. 665.—LOWER WALL OF THE ORAL CAVITY, OR FLOOR OF THE MOUTH, WITH THE TONGUE AND THE LOWER LIP, AND THE MIDDLE OR ORAL PORTION OF THE PHARYNX (FAUCES), SEEN FROM ABOVE.

The cheeks, the tonsils with the palatine arches (pillars of the fauces), and the lateral and posterior walls of the pharynx, have been divided horizontally, likewise the rami of the mandible with the muscles attached thereto, and the parotid glands.

Cavum oris—The oral cavity.

---

[1] In England the portion of the deep cervical fascia covering the parotid gland is usually distinguished as the *parotid fascia;* that covering the masseter muscle, as the *masseteric fascia.*—TR.

[2] See note [1] to p. 413.

[3] Also known as the *posterior palatine*, or *pharyngopalatine, arch.*

[4] *Sinus Tonsillaris.*—"The tonsil, in the fœtus, develops in a depression between the pillars of the fauces, called the *tonsillar sinus. As a rule this depression is not completely filled by the tonsil when that organ has attained its full size, and there usually remains above the tonsil a triangular hollow, the *supratonsillar fossa*, which persists throughout adult life. In front of and behind the tonsil the pillars of the fauces may either remain distinct, with a groove of variable depth, the remains of the *tonsillar sinus*, between them and the tonsil; or else the tonsil may become united with one or both the pillars, in which case a portion of the latter, becoming converted into lymphoid tissue, comes to form an actual constituent part of the tonsil."—Von Langer and Toldt's "Anatomy," 7th ed., p. 300. (Fig. 671, p. 418, shows such an adhesion between the tonsil and the posterior pillar of the fauces).—TR.

[5] Known also as the *anterior palatine*, or *glossopalatine, arch.*

[6] See note [1] to p. 410.

[7] *Plica Pharyngo-epiglottica.*—Three folds of mucous membrane pass from each side of the epiglottis to adjacent structures. The *lateral glosso-epiglottic fold* (Fig. 673, p. 419, and Fig. 778, p. 461) passes forwards to the side of the tongue; the *aryteno-epiglottic fold* (Fig. 778, p. 461) passes backwards and inwards to the epiglottis; and the *pharyngo-epiglottic fold*, between these, passes outwards to the lateral wall of the pharynx. It forms the boundary between the oral and the laryngeal part of the pharynx. Beneath the mucous membrane is a thin strand of fibrous tissue, connecting the side of the epiglottis with the lower border of the Eustachian cartilage. This is the *pharyngo-epiglottic ligament.*—TR.

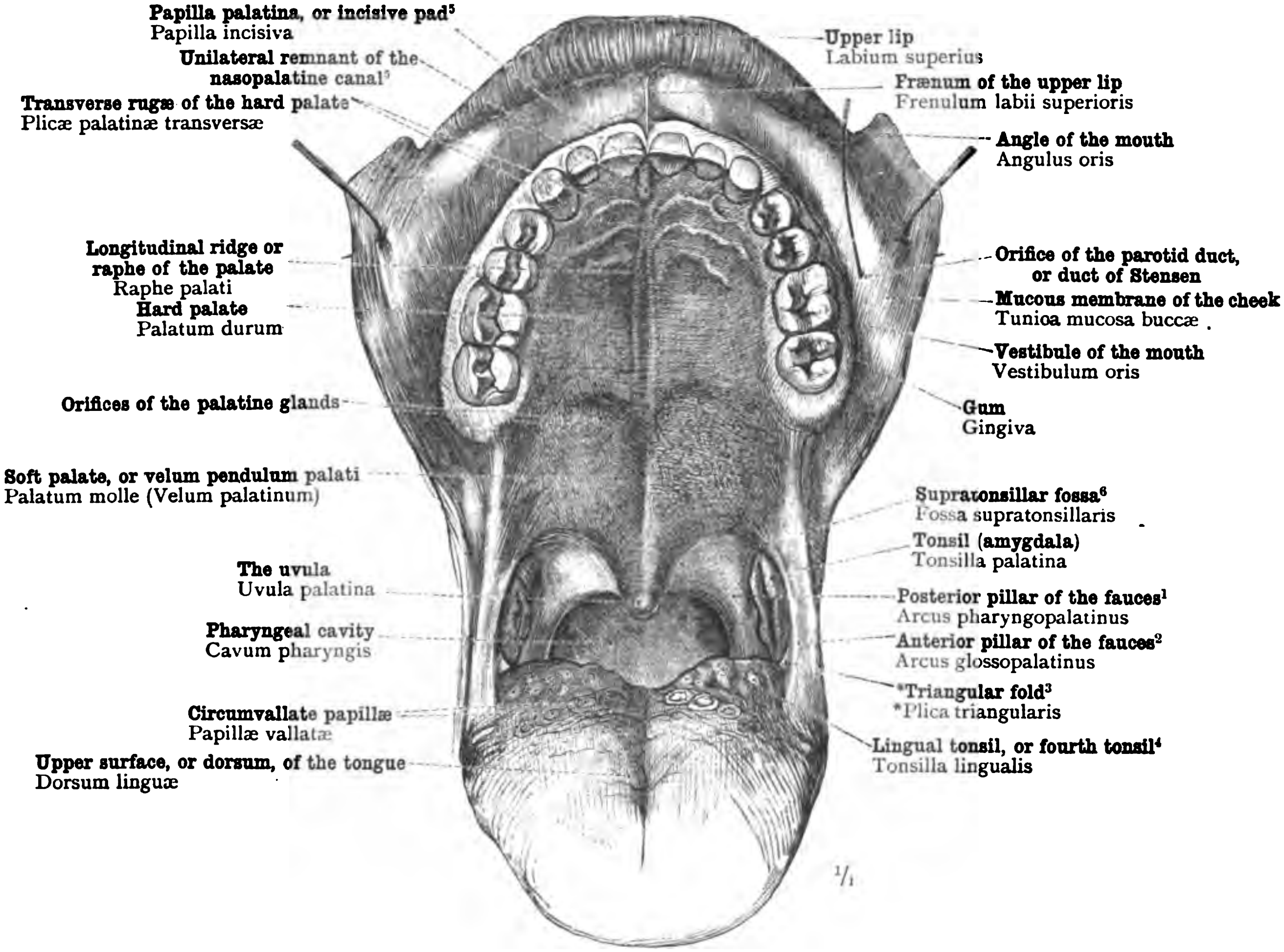

Papilla palatina, or incisive pad[5]
Papilla incisiva
Unilateral remnant of the nasopalatine canal[5]
Transverse rugæ of the hard palate
Plicæ palatinæ transversæ
Longitudinal ridge or raphe of the palate
Raphe palati
Hard palate
Palatum durum
Orifices of the palatine glands
Soft palate, or velum pendulum palati
Palatum molle (Velum palatinum)
The uvula
Uvula palatina
Pharyngeal cavity
Cavum pharyngis
Circumvallate papillæ
Papillæ vallatæ
Upper surface, or dorsum, of the tongue
Dorsum linguæ
Upper lip
Labium superius
Frænum of the upper lip
Frenulum labii superioris
Angle of the mouth
Angulus oris
Orifice of the parotid duct, or duct of Stensen
Mucous membrane of the cheek
Tunioa mucosa buccæ
Vestibule of the mouth
Vestibulum oris
Gum
Gingiva
Supratonsillar fossa[6]
Fossa supratonsillaris
Tonsil (amygdala)
Tonsilla palatina
Posterior pillar of the fauces[1]
Arcus pharyngopalatinus
Anterior pillar of the fauces[2]
Arcus glossopalatinus
*Triangular fold[3]
*Plica triangularis
Lingual tonsil, or fourth tonsil[4]
Tonsilla lingualis
1/1

FIG. 666.—UPPER WALL OF THE ORAL CAVITY, OR ROOF OF THE MOUTH, WITH THE UPPER LIP, AND THE PASSAGE (ISTHMUS FAUCIUM) FROM THE MOUTH INTO THE ORAL PORTION OF THE PHARYNX (THE FAUCES). PALATUM DURUM, THE HARD PALATE; PALATUM MOLLE, THE SOFT PALATE, OR VELUM PENDULUM PALATI, WITH THE UVULA; ARCUS GLOSSOPALATINUS, THE ANTERIOR PILLAR OF THE FAUCES, KNOWN ALSO AS THE ANTERIOR PALATINE OR GLOSSOPALATINE ARCH; ARCUS PHARYNGOPALATINUS, THE POSTERIOR PILLAR OF THE FAUCES, KNOWN ALSO AS THE POSTERIOR PALATINE OR PHARYNGOPALATINE ARCH; TONSILLA PALATINA, THE TONSIL (AMYGDALA).

After the removal of the lower jawbone, the palate was placed in an almost vertical position, and the tongue drawn downwards as far as possible; hence the anterior pillar of the fauces is much stretched.

Cavum oris—The oral cavity.

---

[1] Also known as the ***posterior palatine***, or ***pharyngopalatine***, ***arch***.

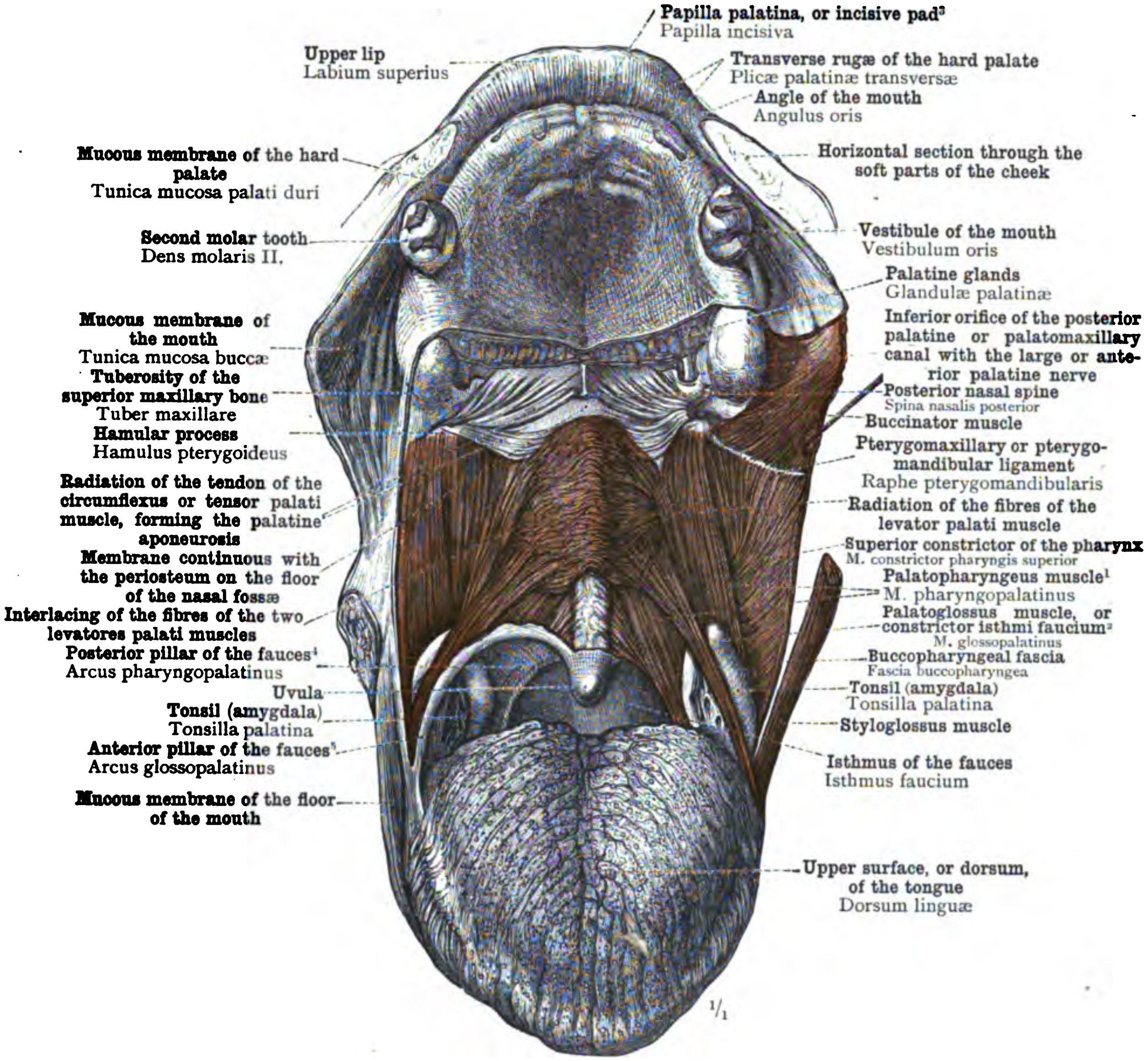
[2] Also known as the ***anterior palatine***, or ***glossopalatine***, ***arch***.

[3] **Triangular Fold*.—This is included between the two limbs into which the anterior pillar of the fauces divides as it approaches the side of the tongue. It should be noted that the name ***plica triangularis*** has been applied to another fold of mucous membrane, viz., to that covering the ***fossa supratonsillaris***.—TR.

[4] *Lingual Tonsil*.—This name is sometimes given to the group of lymphoid follicles found on each side of the dorsum of the tongue at its base, behind the row of circumvallate papillæ. See also note [1] to p. 411.—TR.

[5] On the ***papilla palatina*** or ***incisive pad*** may be found on one or both sides a blind recess, constituting the remnant of the canal which in many animals in this situation leads from the mouth to the nose, and known variously as the ***incisor canal***, ***nasopalatine canal***, ***canal of Stensen***, or ***ductus incisivus***. In man this canal is usually represented by a strand of connective tissue which runs from the recess in the incisive pad upwards through the incisor or anterior palatine canal (canal of Stensen) of the superior maxillary bone to the floor of the nasal fossæ.—TR.

[6] See note [4] to p. 415.


Papilla palatina, or incisive pad[3]
Papilla incisiva
Upper lip
Labium superius
Transverse rugæ of the hard palate
Plicæ palatinæ transversæ
Angle of the mouth
Angulus oris
Mucous membrane of the hard palate
Tunica mucosa palati duri
Horizontal section through the soft parts of the cheek
Second molar tooth
Dens molaris II.
Vestibule of the mouth
Vestibulum oris
Palatine glands
Glandulæ palatinæ
Mucous membrane of the mouth
Tunica mucosa buccæ
Inferior orifice of the posterior palatine or palatomaxillary canal with the large or anterior palatine nerve
Tuberosity of the superior maxillary bone
Tuber maxillare
Posterior nasal spine
Spina nasalis posterior
Hamular process
Hamulus pterygoideus
Buccinator muscle
Pterygomaxillary or pterygomandibular ligament
Raphe pterygomandibularis
Radiation of the tendon of the circumflexus or tensor palati muscle, forming the palatine aponeurosis
Radiation of the fibres of the levator palati muscle
Membrane continuous with the periosteum on the floor of the nasal fossæ
Superior constrictor of the pharynx
M. constrictor pharyngis superior
Interlacing of the fibres of the two levatores palati muscles
Palatopharyngeus muscle[1]
M. pharyngopalatinus
Palatoglossus muscle, or constrictor isthmi faucium[2]
M. glossopalatinus
Posterior pillar of the fauces[4]
Arcus pharyngopalatinus
Buccopharyngeal fascia
Fascia buccopharyngea
Uvula
Tonsil (amygdala)
Tonsilla palatina
Tonsil (amygdala)
Tonsilla palatina
Styloglossus muscle
Anterior pillar of the fauces[5]
Arcus glossopalatinus
Isthmus of the fauces
Isthmus faucium
Mucous membrane of the floor of the mouth
Upper surface, or dorsum, of the tongue
Dorsum linguæ
1/1

[1] This muscle occupies the posterior pillar of the fauces.—Tr.
[2] This muscle occupies the anterior pillar of the fauces.—Tr.
[3] See note 5 to p. 416.
[4] Known also as the *posterior palatine*, or *pharyngopalatine, arch.*
[5] Known also as the *anterior palatine*, or *glossopalatine, arch.*

Fig. 667.—Muscles of the Soft Palate and of the Pillars of the Fauces or Palatine Arches, seen from Before. Aponeurotic Expansion of the Tendon of the Circumflexus or Tensor Palati Muscle (attached in Front to the Transverse Ridge on the Lower Surface of the Palate Bone, and forming posteriorly the Palatine Aponeurosis); Retiform Interlacement of the Fibres of the Two Levatores Palati Muscles.

On the left side the mucous membrane has been removed to show the connexion of the buccinator muscle with the superior constrictor of the pharynx through the intermediation of the pterygomaxillary or pterygomandibular ligament. The parts were prepared as in Fig. 666.

Cavum oris—The oral cavity.

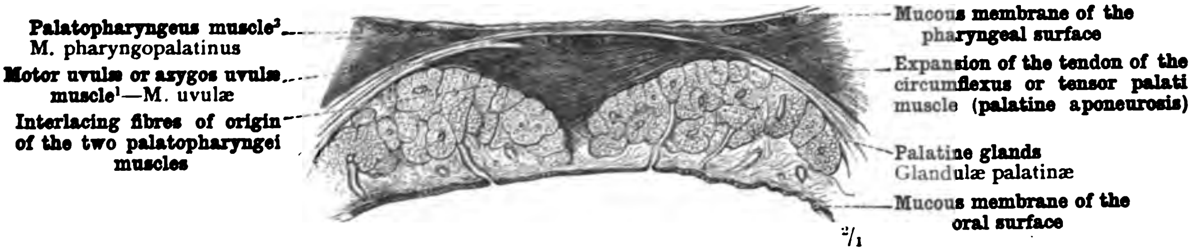

Palatopharyngeus muscle[3]
M. pharyngopalatinus
Motor uvulæ or azygos uvulæ muscle[1]—M. uvulæ
Interlacing fibres of origin of the two palatopharyngei muscles
Mucous membrane of the pharyngeal surface
Expansion of the tendon of the circumflexus or tensor palati muscle (palatine aponeurosis)
Palatine glands
Glandulæ palatinæ
Mucous membrane of the oral surface
2/1

FIG. 668.—TRANSVERSE SECTION THROUGH THE UPPERMOST PORTION OF THE SOFT PALATE, IN THE REGION OF THE APONEUROTIC EXPANSION OF THE CIRCUMFLEXUS OR TENSOR PALATI MUSCLE.

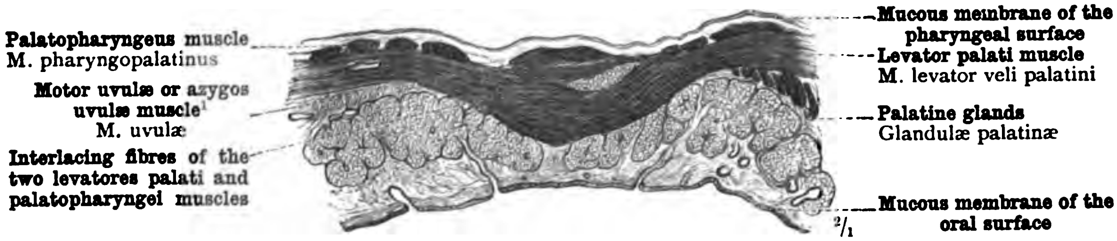

Palatopharyngeus muscle
M. pharyngopalatinus
Motor uvulæ or azygos uvulæ muscle[1]
M. uvulæ
Interlacing fibres of the two levatores palati and palatopharyngei muscles
Mucous membrane of the pharyngeal surface
Levator palati muscle
M. levator veli palatini
Palatine glands
Glandulæ palatinæ
Mucous membrane of the oral surface
2/1

FIG. 669.—TRANSVERSE SECTION THROUGH THE SOFT PALATE MIDWAY BETWEEN ITS ATTACHED AND FREE EXTREMITIES, IN THE REGION OF THE LEVATOR PALATI MUSCLE.

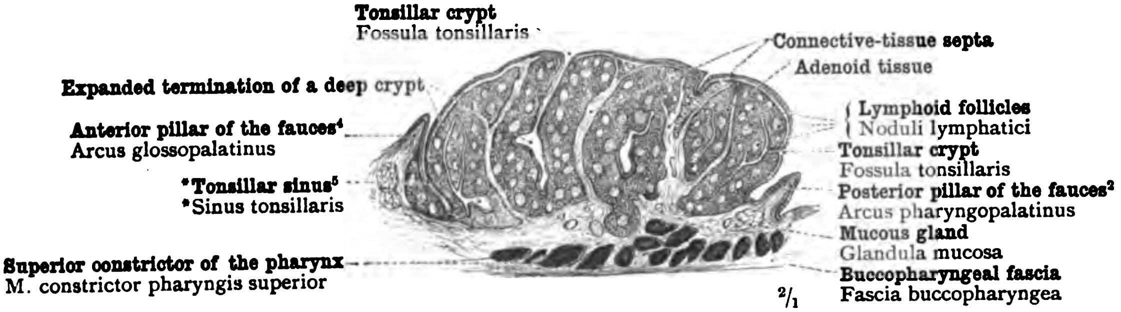


FIG. 670.—HORIZONTAL SECTION THROUGH A LARGE PROJECTING TONSIL (TONSILLA PALATINA) AND THROUGH THE PILLARS OF THE FAUCES. (FROM AN EXECUTED MALE CRIMINAL, AGED TWENTY-TWO YEARS.)

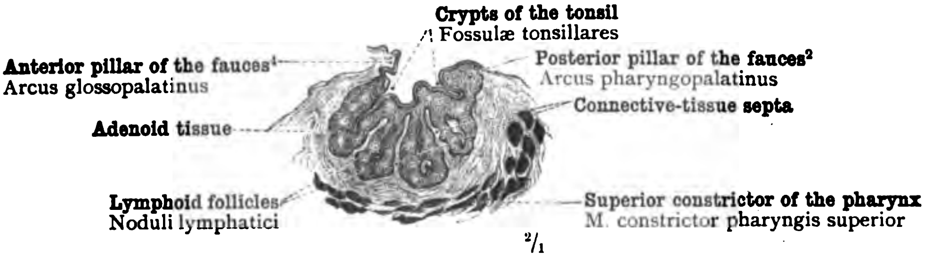


FIG. 671.—HORIZONTAL SECTION THROUGH A SMALL SUNKEN TONSIL (TONSILLA PALATINA) AND THROUGH THE PILLARS OF THE FAUCES. (FROM A FEMALE, AGED FIFTY-TWO YEARS.)

The posterior pillar is united with the tonsil.[5]

---

[1] The name *motor uvulæ*, suggested by Macalister, is to be preferred to the old and more familiar name *azygos uvulæ*, which was given to the muscle when it was erroneously supposed to be a single median muscle.—TR.

[2] Known also as the *posterior palatine*, or *pharyngopalatine, arch.*

[3] See note [1] to p. 417.

[4] Known also as the *anterior palatine*, or *glossopalatine, arch.*

[5] See note [4] to p. 415.

Cavum oris—The oral cavity.

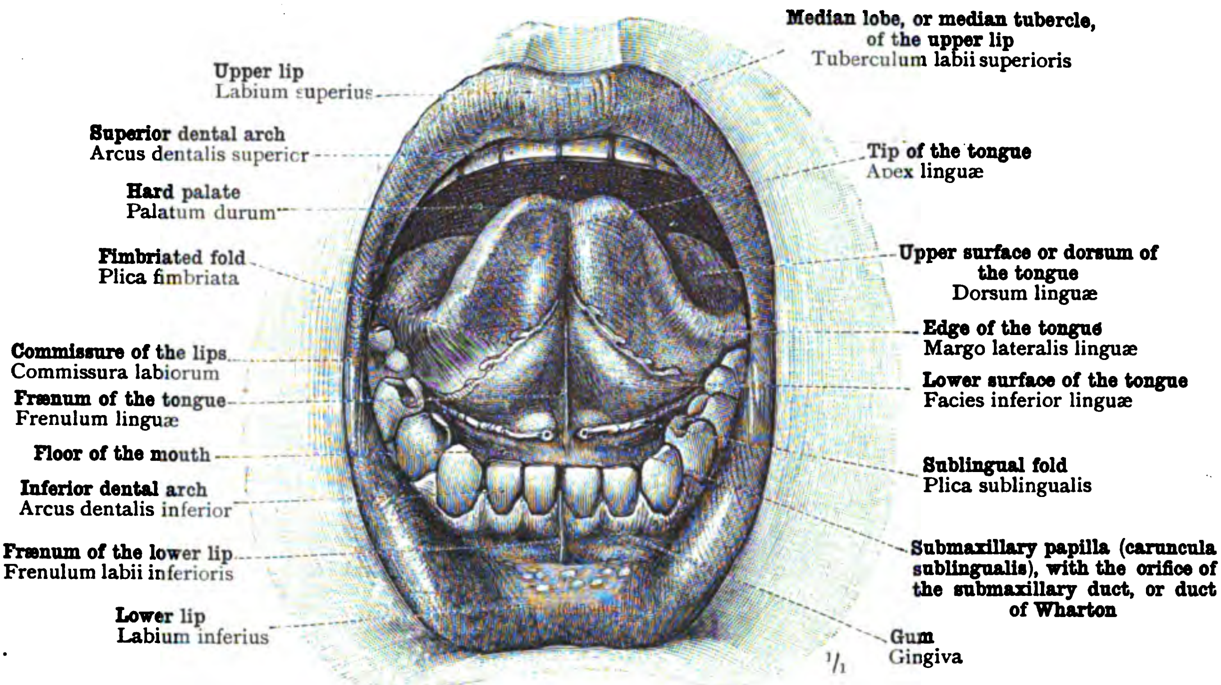
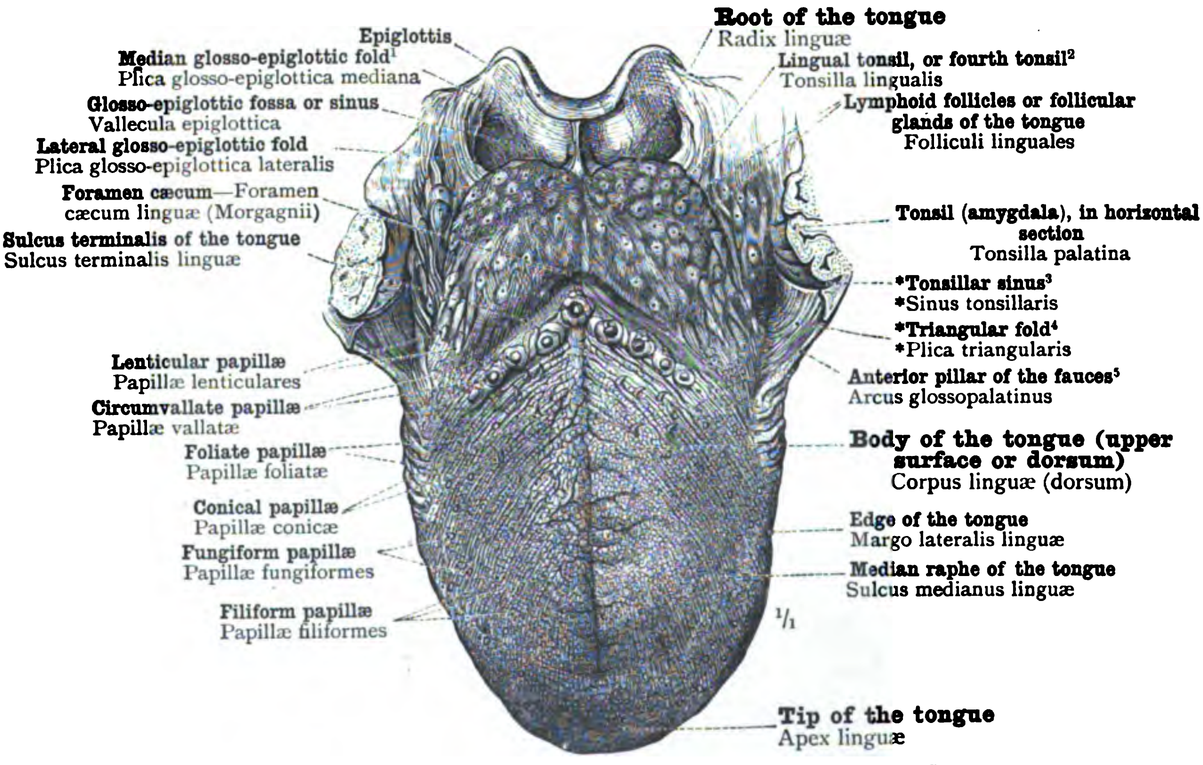


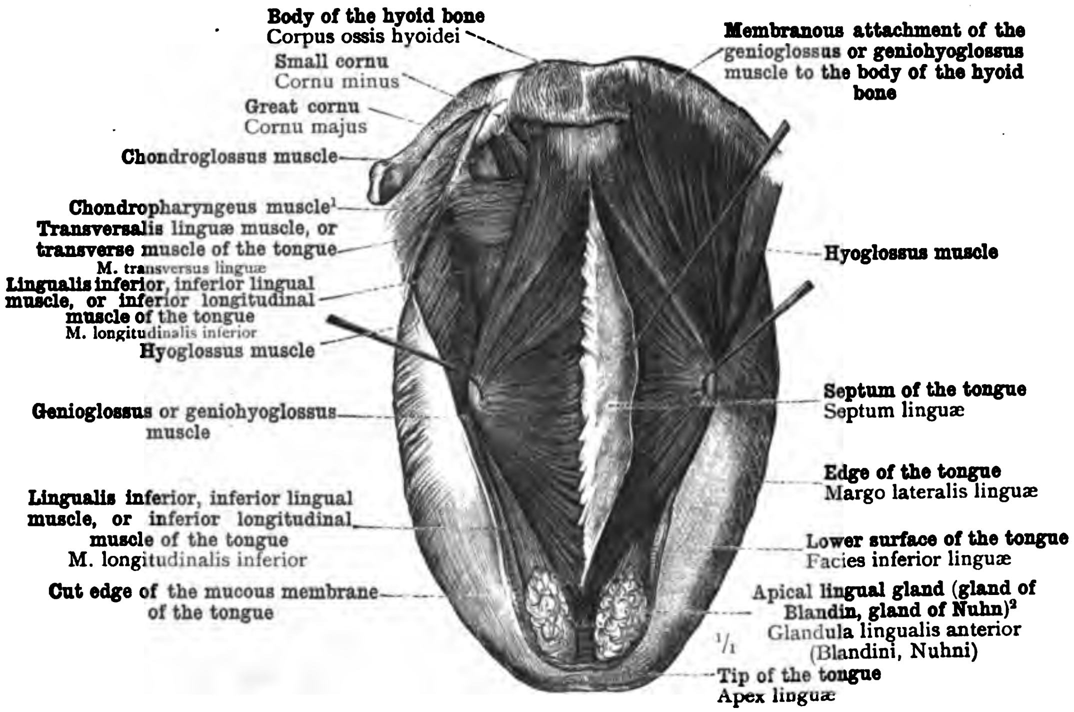
FIG. 672.—THE MOUTH, WIDELY OPENED, WITH THE TIP OF THE TONGUE DRAWN UPWARDS, TO SHOW THE FRÆNUM LINGUÆ, THE SUBLINGUAL FOLD, THE SUBMAXILLARY PAPILLA (CARUNCULA SUBLINGUALIS), AND THE FIMBRIATED FOLD.



[1] Or *frænum epiglottidis*.
[2] See note 4 to p. 416, and note 1 to p. 411.
[3] See note 4 to p. 415.
[4] See note 3 to p. 416.
[5] Known also as the *anterior palatine*, or *glossopalatine*, *arch*.

FIG. 673.—THE TONGUE, LINGUA, WITH THE EPIGLOTTIS: RADIX LINGUÆ, THE ROOT OF THE TONGUE; DORSUM LINGUÆ, THE UPPER SURFACE OF THE TONGUE; APEX LINGUÆ, THE TIP OF THE TONGUE.

Cavum oris—The oral cavity.

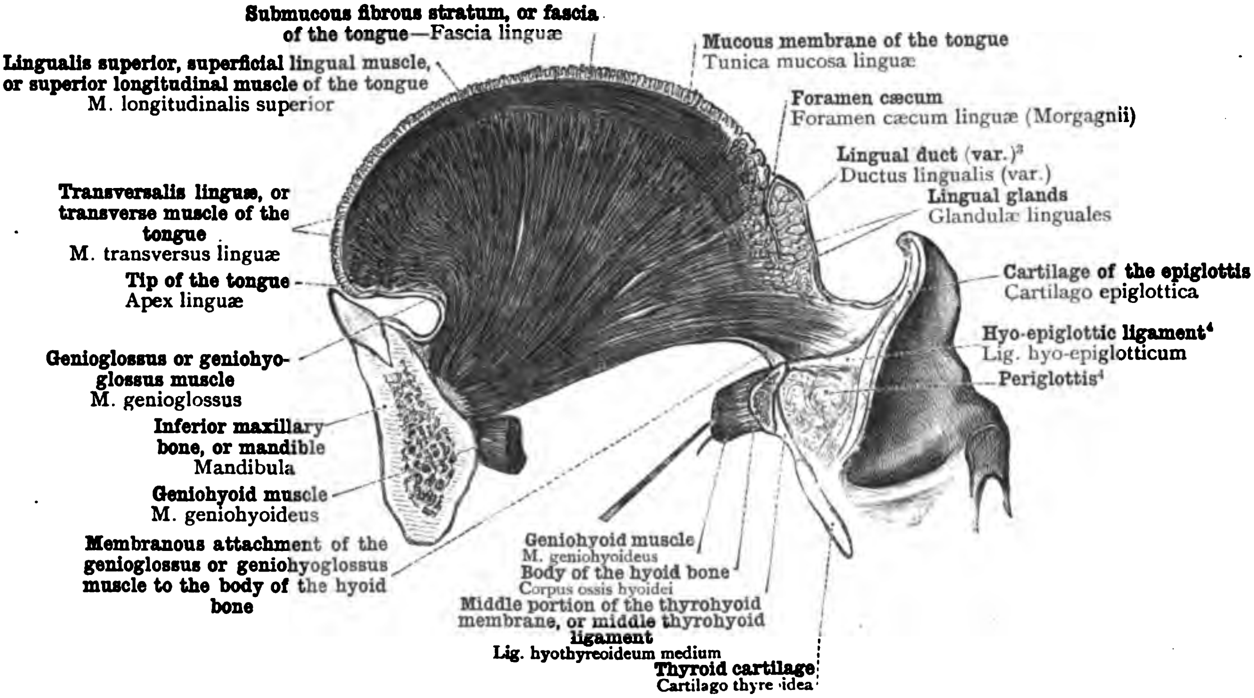

Body of the hyoid bone
Corpus ossis hyoidei
Small cornu
Cornu minus
Great cornu
Cornu majus
Chondroglossus muscle
Chondropharyngeus muscle[1]
Transversalis linguæ muscle, or transverse muscle of the tongue
M. transversus linguæ
Lingualis inferior, inferior lingual muscle, or inferior longitudinal muscle of the tongue
M. longitudinalis inferior
Hyoglossus muscle
Genioglossus or geniohyoglossus muscle
Lingualis inferior, inferior lingual muscle, or inferior longitudinal muscle of the tongue
M. longitudinalis inferior
Cut edge of the mucous membrane of the tongue
Membranous attachment of the genioglossus or geniohyoglossus muscle to the body of the hyoid bone
Hyoglossus muscle
Septum of the tongue
Septum linguæ
Edge of the tongue
Margo lateralis linguæ
Lower surface of the tongue
Facies inferior linguæ
Apical lingual gland (gland of Blandin, gland of Nuhn)[2]
Glandula lingualis anterior (Blandini, Nuhni)
1/1
Tip of the tongue
Apex linguæ

[1] *Chondropharyngeus Muscle.*—See Fig. 706, p. 433, and note [1] to same page.

[2] This is not a single gland on each side, but a group of glands aggregated into a small oblong mass. Most of the glands are acinotubular.—Tr.

FIG. 674.—MUSCLES OF THE TONGUE WITH THE SEPTUM LINGUÆ AND THE APICAL LINGUAL GLANDS (GLANDS OF BLANDIN OR NUHN, GLANDULÆ LINGUALES ANTERIORES).

On the left side the hyoglossus muscle has been removed, to display the chondroglossus and transversalis linguæ muscles.


Submucous fibrous stratum, or fascia of the tongue—Fascia linguæ
Lingualis superior, superficial lingual muscle, or superior longitudinal muscle of the tongue
M. longitudinalis superior
Transversalis linguæ, or transverse muscle of the tongue
M. transversus linguæ
Tip of the tongue
Apex linguæ
Genioglossus or geniohyoglossus muscle
M. genioglossus
Inferior maxillary bone, or mandible
Mandibula
Geniohyoid muscle
M. geniohyoideus
Membranous attachment of the genioglossus or geniohyoglossus muscle to the body of the hyoid bone
Mucous membrane of the tongue
Tunica mucosa linguæ
Foramen cæcum
Foramen cæcum linguæ (Morgagnii)
Lingual duct (var.)[3]
Ductus lingualis (var.)
Lingual glands
Glandulæ linguales
Cartilage of the epiglottis
Cartilago epiglottica
Hyo-epiglottic ligament[4]
Lig. hyo-epiglotticum
Periglottis[4]
Geniohyoid muscle
M. geniohyoideus
Body of the hyoid bone
Corpus ossis hyoidei
Middle portion of the thyrohyoid membrane, or middle thyrohyoid ligament
Lig. hyothyreoideum medium
Thyroid cartilage
Cartilago thyreoidea

[3] See Appendix, note [1].

[4] See Appendix, note [2].

FIG. 675.—THE TONGUE, WITH THE INFERIOR MAXILLARY BONE, THE HYOID BONE, AND THE EPIGLOTTIS, IN SAGITTAL SECTION. MUSCLES AND MUCOUS MEMBRANE OF THE TONGUE; GLANDULÆ LINGUALES, LINGUAL GLANDS; DUCTUS LINGUALIS, LINGUAL DUCT.

The larynx has been drawn somewhat away from the tongue.

Cavum oris—The oral cavity.

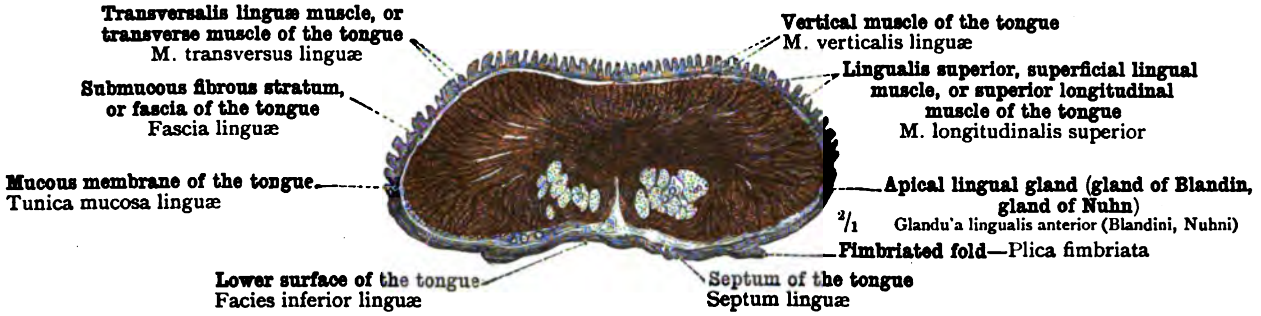

Transversalis linguæ muscle, or transverse muscle of the tongue
M. transversus linguæ
Submucous fibrous stratum, or fascia of the tongue
Fascia linguæ
Mucous membrane of the tongue
Tunica mucosa linguæ
Lower surface of the tongue
Facies inferior linguæ
Vertical muscle of the tongue
M. verticalis linguæ
Lingualis superior, superficial lingual muscle, or superior longitudinal muscle of the tongue
M. longitudinalis superior
Apical lingual gland (gland of Blandin, gland of Nuhn)
2/1
Glandu'a lingualis anterior (Blandini, Nuhni)
Fimbriated fold—Plica fimbriata
Septum of the tongue
Septum linguæ

FIG. 676.—CORONAL SECTION THROUGH THE TIP OF THE TONGUE. GLANDULA LINGUALIS ANTERIOR, APICAL LINGUAL GLAND (GLAND OF BLANDIN, GLAND OF NUHN).

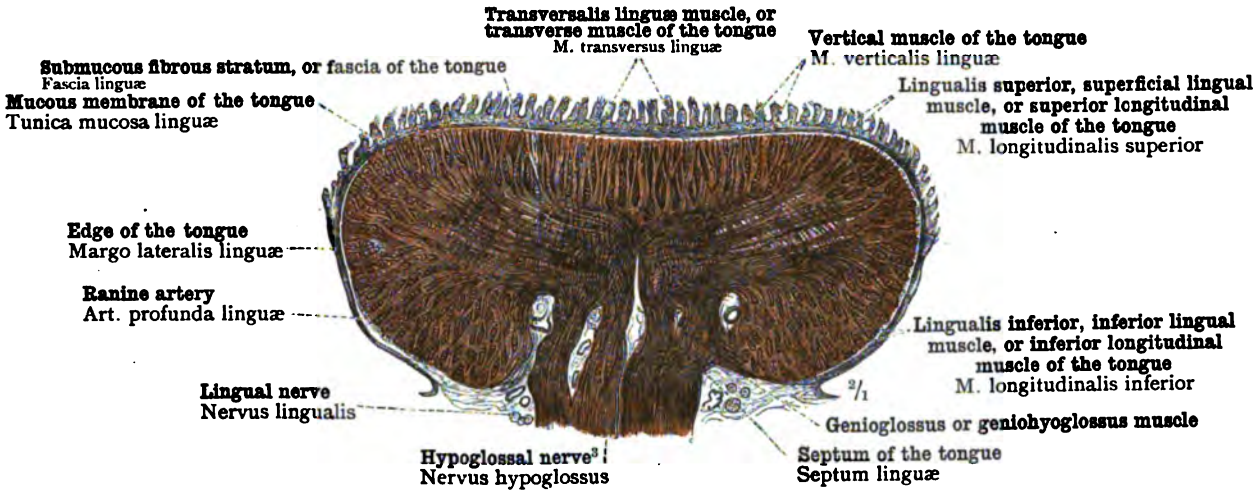

Transversalis linguæ muscle, or transverse muscle of the tongue
M. transversus linguæ
Submucous fibrous stratum, or fascia of the tongue
Fascia linguæ
Mucous membrane of the tongue
Tunica mucosa linguæ
Vertical muscle of the tongue
M. verticalis linguæ
Lingualis superior, superficial lingual muscle, or superior longitudinal muscle of the tongue
M. longitudinalis superior
Edge of the tongue
Margo lateralis linguæ
Ranine artery
Art. profunda linguæ
Lingual nerve
Nervus lingualis
Hypoglossal nerve[3]
Nervus hypoglossus
Lingualis inferior, inferior lingual muscle, or inferior longitudinal muscle of the tongue
2/1
M. longitudinalis inferior
Genioglossus or geniohyoglossus muscle
Septum of the tongue
Septum linguæ

FIG. 677.—CORONAL SECTION THROUGH THE BODY OF THE TONGUE.

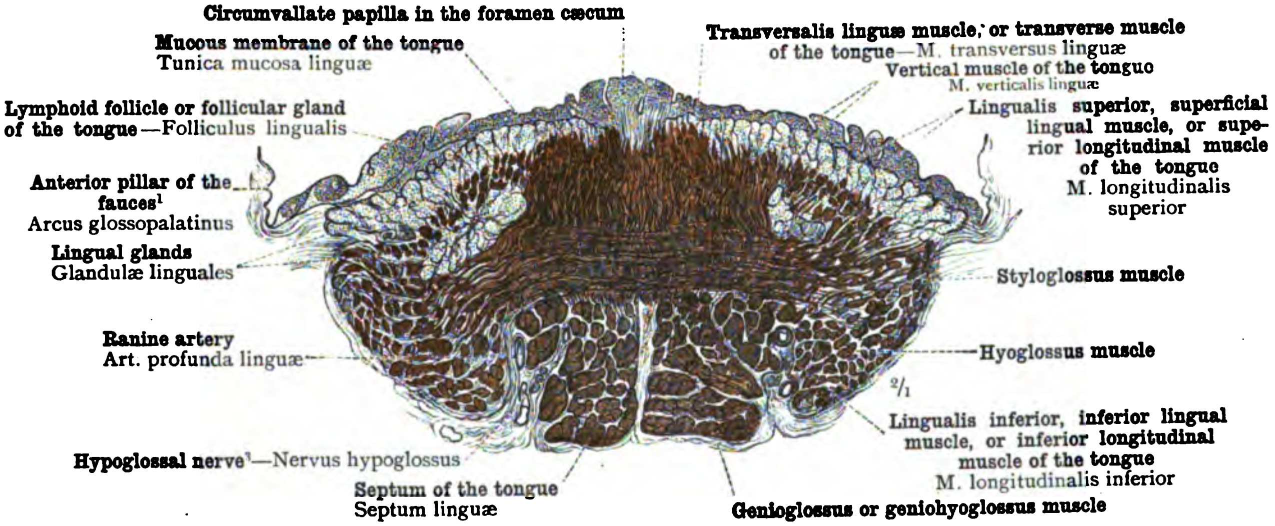

Circumvallate papilla in the foramen cæcum
Mucous membrane of the tongue
Tunica mucosa linguæ
Lymphoid follicle or follicular gland of the tongue—Folliculus lingualis
Anterior pillar of the fauces[1]
Arcus glossopalatinus
Lingual glands
Glandulæ linguales
Ranine artery
Art. profunda linguæ
Hypoglossal nerve[3]—Nervus hypoglossus
Septum of the tongue
Septum linguæ
Transversalis linguæ muscle, or transverse muscle of the tongue—M. transversus linguæ
Vertical muscle of the tonguo
M. verticalis linguæ
Lingualis superior, superficial lingual muscle, or superior longitudinal muscle of the tongue
M. longitudinalis superior
Styloglossus muscle
Hyoglossus muscle
2/1
Lingualis inferior, inferior lingual muscle, or inferior longitudinal muscle of the tongue
M. longitudinalis inferior
Genioglossus or geniohyoglossus muscle

FIG. 678.—CORONAL SECTION THROUGH THE MOST ANTERIOR PORTION OF THE ROOT OF THE TONGUE. LINGUAL GLANDS.

The section passes through a circumvallate papilla which in this specimen occupies the site of the foramen cæcum.

THE ARRANGEMENT OF THE MUSCLES OF THE TONGUE, AS DISPLAYED BY CORONAL SECTIONS THROUGH THE ORGAN.[2]

---

[1] Known also as the *anterior palatine*, or *glossopalatine, arch.*

[2] Macalister speaks of the intrinsic muscles of the tongue as *strata*, four in number, viz., *stratum longitudinale inferius*, *stratum longitudinale superius*, *stratum transversum*, and *stratum perpendiculare*.—Tr.

[3] Or *twelfth cranial nerve*, in Sœmerring's enumeration; *ninth cranial nerve*, in that of Willis. Sometimes known as the *lingual motor nerve*.—Tr.

Cavum oris—The oral cavity.

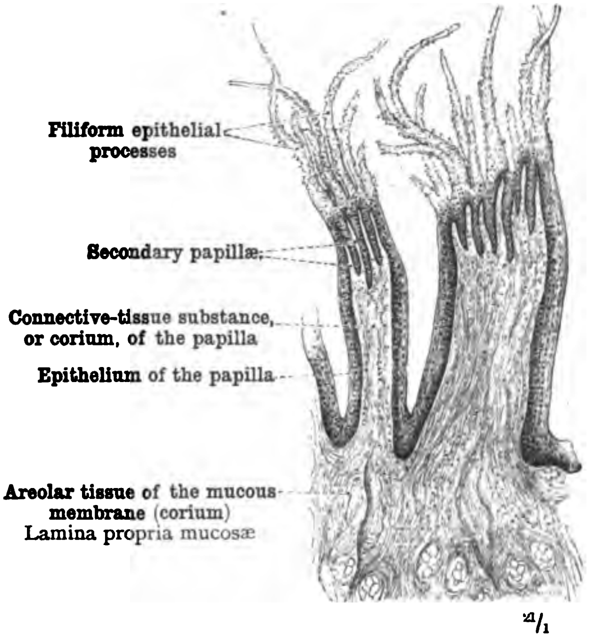

Filiform epithelial processes
Secondary papillæ
Connective-tissue substance, or corium, of the papilla
Epithelium of the papilla
Areolar tissue of the mucous membrane (corium)
Lamina propria mucosæ
21/1

FIG. 679.—PAPILLÆ FILIFORMES, FILIFORM PAPILLÆ OF THE TONGUE. VERY LARGE FORM, WHICH PROJECTS MARKEDLY FROM THE SURFACE. LONGITUDINAL SECTION.

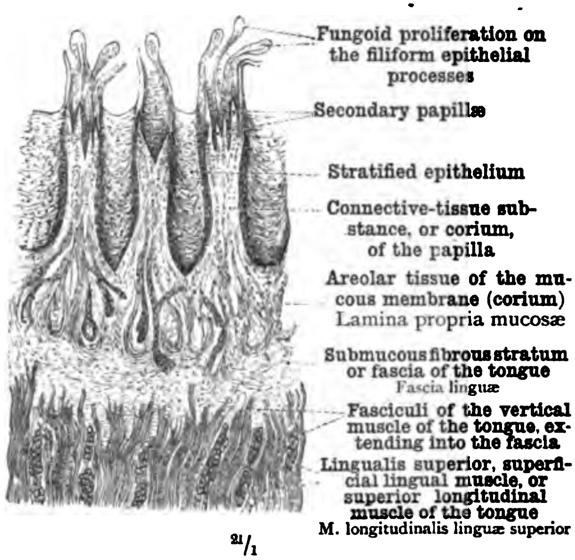

Fungoid proliferation on the filiform epithelial processes
Secondary papillæ
Stratified epithelium
Connective-tissue substance, or corium, of the papilla
Areolar tissue of the mucous membrane (corium)
Lamina propria mucosæ
Submucous fibrous stratum or fascia of the tongue
Fascia linguæ
Fasciculi of the vertical muscle of the tongue, extending into the fascia
Lingualis superior, superficial lingual muscle, or superior longitudinal muscle of the tongue
M. longitudinalis linguæ superior
21/1

FIG. 680.—PAPILLÆ FILIFORMES, FILIFORM PAPILLÆ OF THE TONGUE. SMALL FORM, WHICH PROJECTS BUT SLIGHTLY FROM THE SURFACE. LONGITUDINAL SECTION.

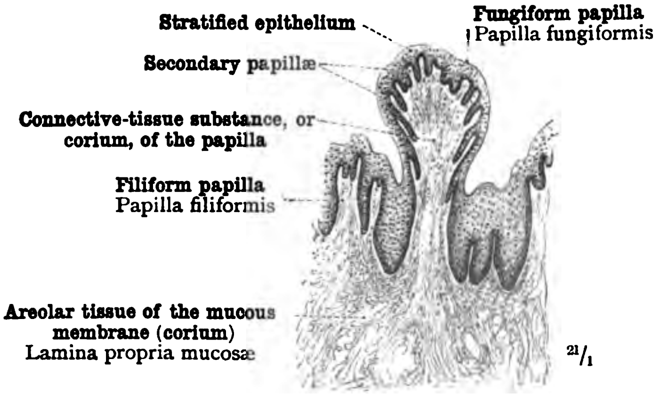


FIG. 681.—PAPILLA FUNGIFORMIS, FUNGIFORM PAPILLA OF THE TONGUE, IN LONGITUDINAL SECTION.

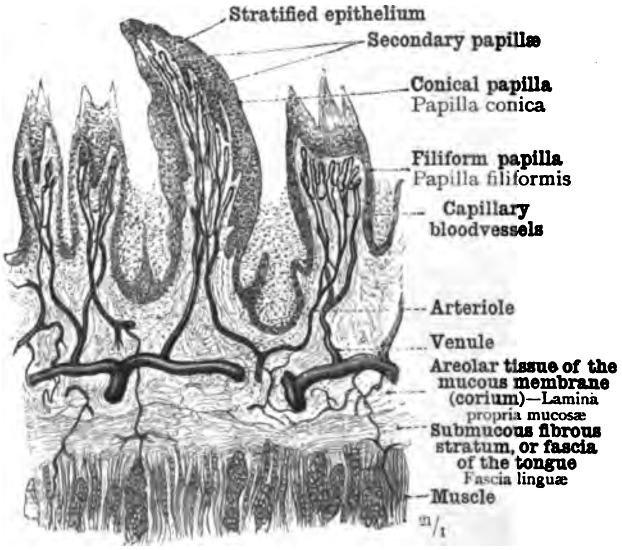


FIG. 682.—PAPILLA CONICA, CONICAL PAPILLA OF THE TONGUE, AMONG FILIFORM PAPILLÆ, IN LONGITUDINAL SECTION.

The bloodvessels of the mucous membrane have been injected: the arteries, red; the veins, blue.

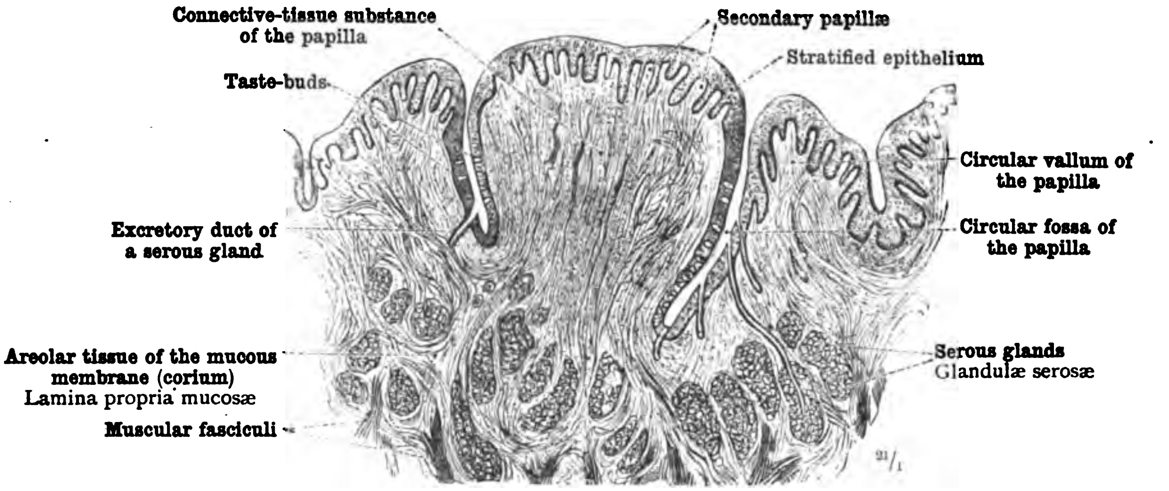

Connective-tissue substance of the papilla
Secondary papillæ
Stratified epithelium
Taste-buds
Circular vallum of the papilla
Excretory duct of a serous gland
Circular fossa of the papilla
Areolar tissue of the mucous membrane (corium)
Lamina propria mucosæ
Serous glands
Glandulæ serosæ
Muscular fasciculi
21/1

FIG. 683.—PAPILLA VALLATA, CIRCUMVALLATE PAPILLA OF THE TONGUE, IN LONGITUDINAL SECTION.

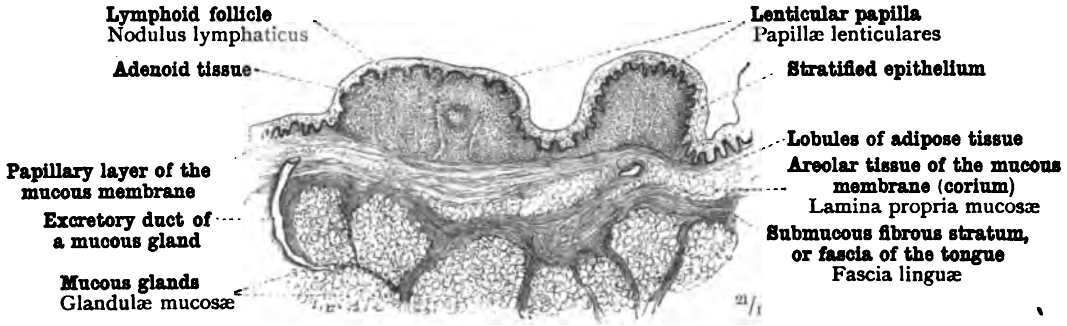

Lymphoid follicle
Nodulus lymphaticus
Lenticular papilla
Papillæ lenticulares
Adenoid tissue
Stratified epithelium
Lobules of adipose tissue
Papillary layer of the mucous membrane
Areolar tissue of the mucous membrane (corium)
Lamina propria mucosæ
Excretory duct of a mucous gland
Submucous fibrous stratum, or fascia of the tongue
Fascia linguæ
Mucous glands
Glandulæ mucosæ
21/1

FIG. 684.—TWO LENTICULAR PAPILLÆ OF THE TONGUE, IN LONGITUDINAL SECTION.

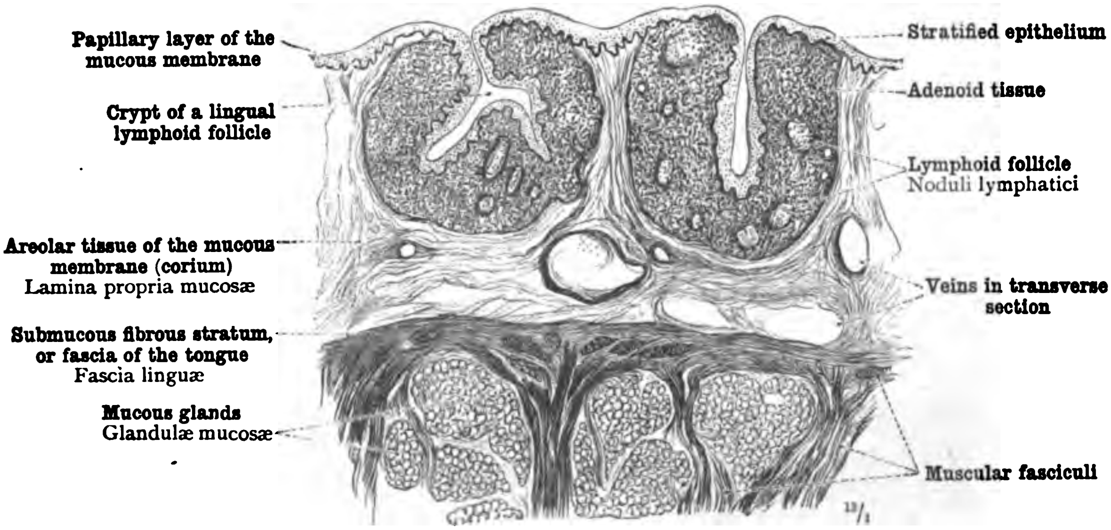
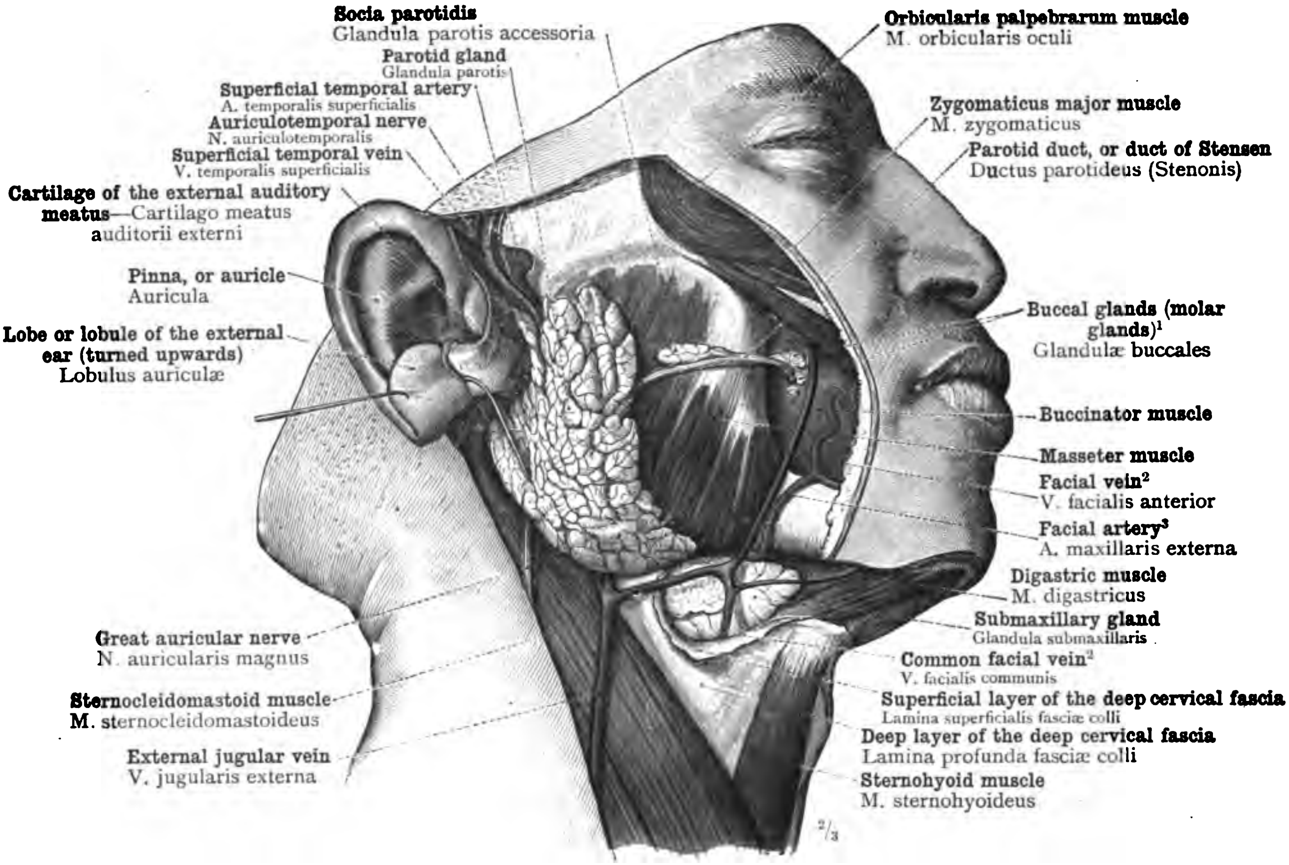

Papillary layer of the mucous membrane
Stratified epithelium
Adenoid tissue
Crypt of a lingual lymphoid follicle
Lymphoid follicle
Noduli lymphatici
Areolar tissue of the mucous membrane (corium)
Lamina propria mucosæ
Veins in transverse section
Submucous fibrous stratum, or fascia of the tongue
Fascia linguæ
Mucous glands
Glandulæ mucosæ
Muscular fasciculi
13/1

FIG. 568.—TWO LINGUAL LYMPHOID FOLLICLES, OR FOLLICULAR GLANDS OF THE TONGUE, IN LONGITUDINAL SECTION.

Cavum oris—The oral cavity.

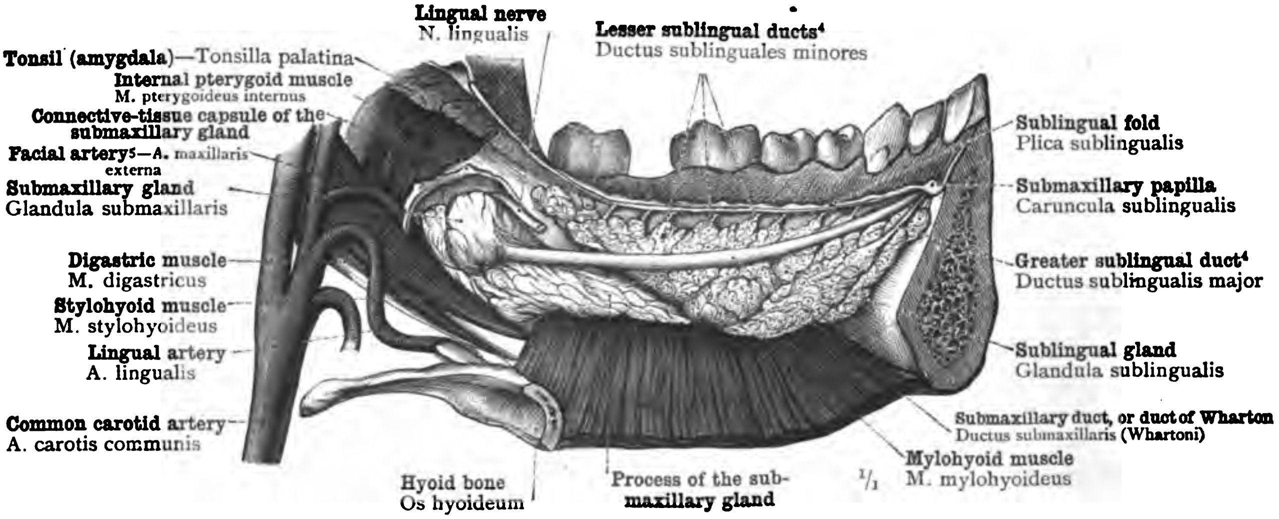

Socia parotidis
Glandula parotis accessoria
Parotid gland
Glandula parotis
Superficial temporal artery
A. temporalis superficialis
Auriculotemporal nerve
N. auriculotemporalis
Superficial temporal vein
V. temporalis superficialis
Cartilage of the external auditory **meatus**—Cartilago meatus auditorii externi
Pinna, or auricle
Auricula
Lobe or lobule of the external **ear (turned** upwards)
Lobulus auriculæ
Great auricular nerve
N. auricularis magnus
Sternocleidomastoid muscle
M. sternocleidomastoideus
External jugular vein
V. jugularis externa
Orbicularis palpebrarum muscle
M. orbicularis oculi
Zygomaticus major muscle
M. zygomaticus
Parotid duct, or duct of Stensen
Ductus parotideus (Stenonis)
Buccal glands (molar glands)[1]
Glandulæ buccales
Buccinator muscle
Masseter muscle
Facial vein[2]
V. facialis anterior
Facial artery[3]
A. maxillaris externa
Digastric **muscle**
M. digastricus
Submaxillary **gland**
Glandula submaxillaris
Common facial vein[2]
V. facialis communis
Superficial layer of the deep cervical **fascia**
Lamina superficialis fasciæ colli
Deep layer of the deep cervical **fascia**
Lamina profunda fasciæ colli
Sternohyoid muscle
M. sternohyoideus
²/₃

[1] See note [1] to p. 413.

[2] In the author's nomenclature, the *facial* vein and the *temporomaxillary* vein of English anatomists are termed *anterior* and *posterior facial*, respectively, and the short trunk formed by the union of the facial vein with the anterior division of the temporomaxillary vein is termed the *common facial* vein.—TR.

[3] See note [1] to p. 410.

FIG. 686.—GLANDULA PAROTIS, THE PAROTID GLAND; GLANDULA SUBMAXILLARIS, THE SUBMAXILLARY GLAND. RIGHT SIDE.

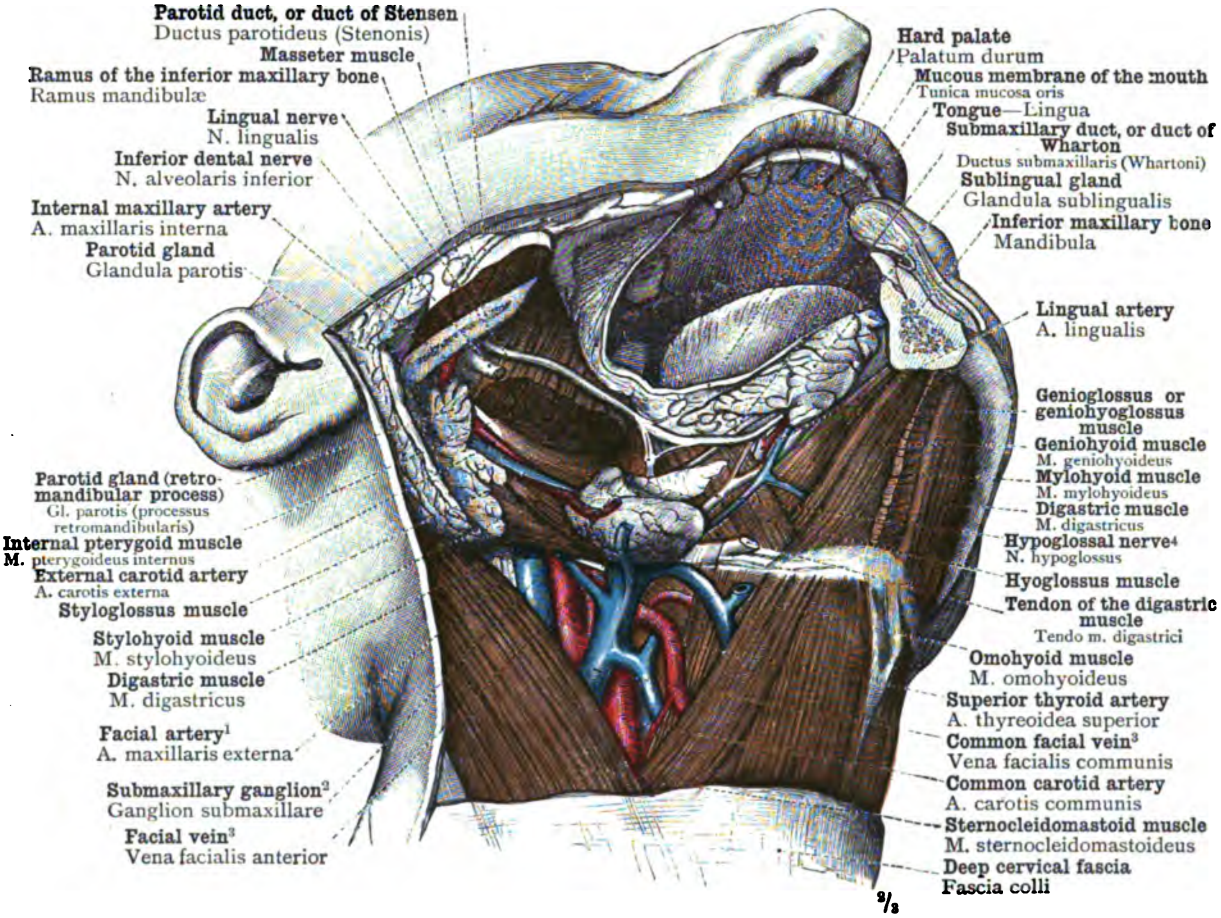

Lingual nerve
N. lingualis
Lesser sublingual ducts[4]
Ductus sublinguales minores
Tonsil (amygdala)—Tonsilla palatina
Internal pterygoid muscle
M. pterygoideus internus
Connective-tissue capsule of the **submaxillary** gland
Facial artery[5]—A. maxillaris externa
Submaxillary gland
Glandula submaxillaris
Digastric muscle
M. digastricus
Stylohyoid muscle
M. stylohyoideus
Lingual artery
A. lingualis
Common carotid artery
A. carotis communis
Hyoid bone
Os hyoideum
Process of the sub- **maxillary gland**
Sublingual fold
Plica sublingualis
Submaxillary papilla
Caruncula sublingualis
Greater sublingual duct[4]
Ductus sublingualis major
Sublingual gland
Glandula sublingualis
Submaxillary duct, or duct of Wharton
Ductus submaxillaris (Whartoni)
Mylohyoid muscle
M. mylohyoideus
¹/₁

[4] See Appendix, note 3.

[5] See note [1] to p. 410.

FIG. 687.—GLANDULA SUBLINGUALIS, THE SUBLINGUAL GLAND, WITH A PORTION OF THE SUBMAXILLARY GLAND, SEEN FROM THE INNER (ORAL) SIDE. EXCRETORY DUCTS OF THESE GLANDS. LEFT SIDE.

Glandulæ salivales—Salivary glands.



[1] See note [1] to p. 410.
[2] Sometimes known as the *lingual* ganglion.
[3] See note [2] to p. 424.
[4] Or ***twelfth cranial nerve***, in Sœmerring's enumeration; ***ninth cranial nerve***, in that of Willis. Sometimes known as the ***lingual motor nerve***.—TR.

FIG. 688.—GLANDULA SUBLINGUALIS, THE SUBLINGUAL GLAND; GLANDULA SUBMAXILLARIS, THE SUBMAXILLARY GLAND; GLANDULA PAROTIS, THE PAROTID GLAND: DISPLAYED ON THE RIGHT SIDE OF THE BODY AFTER THE REMOVAL OF A PORTION OF THE INFERIOR MAXILLARY BONE. RELATIONS OF THESE GLANDS TO MUSCLES, VESSELS, AND NERVES.

The anterior edge of the parotid gland with the adjoining portion of the parotid duct has been removed.

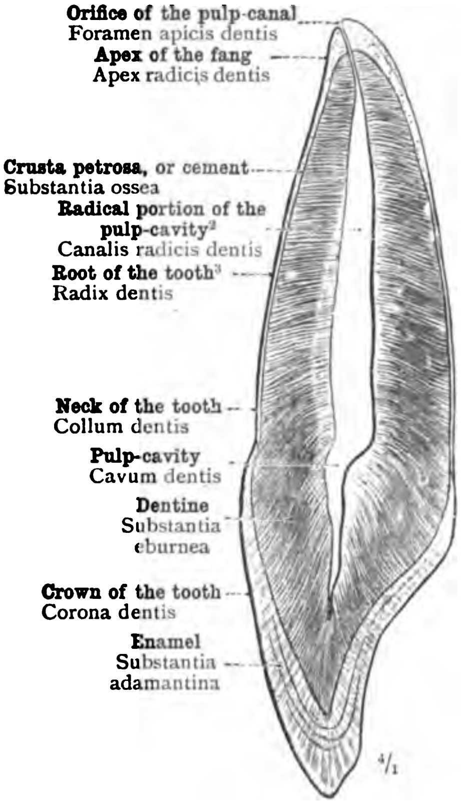


FIG. 689.—DENS INCISIVUS SUPERIOR MEDIALIS, UPPER CENTRAL OR MESIAL INCISIOR TOOTH, IN SAGITTAL SECTION. SUBSTANTIA EBURNEA, THE DENTINE; SUBSTANTIA ADAMANTINA, THE ENAMEL; SUBSTANTIA OSSEA, THE CEMENT OR CRUSTA PETROSA; CAVUM DENTIS, THE PULP-CAVITY; CANALIS RADICIS DENTIS, THE PULP-CANAL.[2]

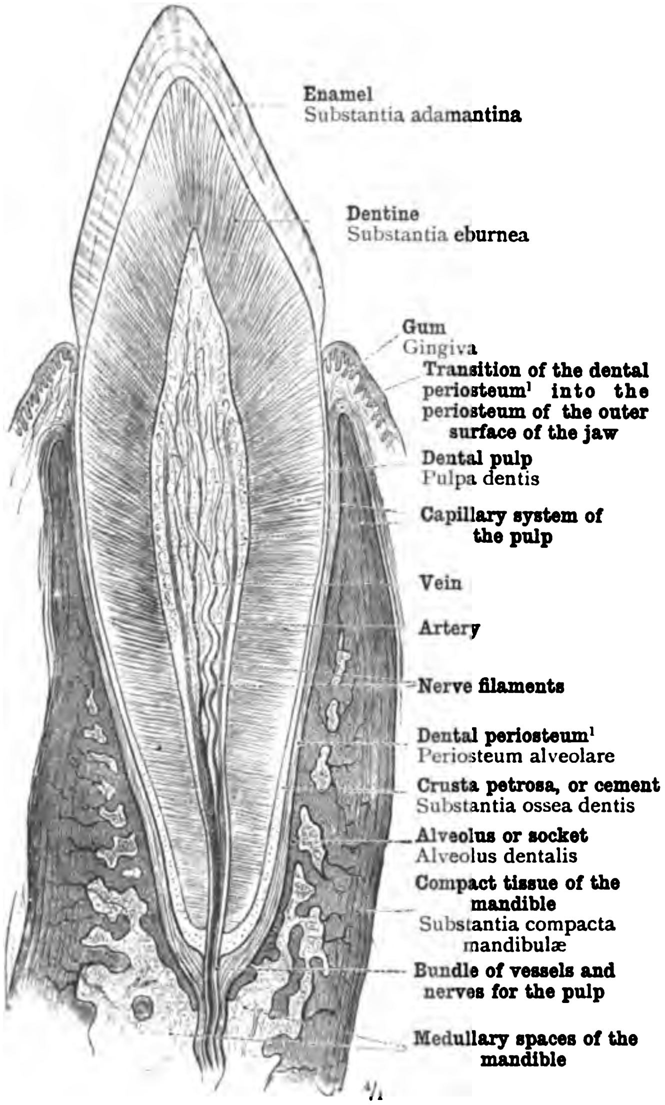

Enamel
Substantia adamantina
Dentine
Substantia eburnea
Gum
Gingiva
Transition of the dental periosteum[1] into the periosteum of the outer surface of the jaw
Dental pulp
Pulpa dentis
Capillary system of the pulp
Vein
Artery
Nerve filaments
Dental periosteum[1]
Periosteum alveolare
Crusta petrosa, or cement
Substantia ossea dentis
Alveolus or socket
Alveolus dentalis
Compact tissue of the mandible
Substantia compacta mandibulæ
Bundle of vessels and nerves for the pulp
Medullary spaces of the mandible
4/1

FIG. 690.—DENS CANINUS INFERIOR, LOWER CANINE TOOTH, WITH THE ALVEOLAR PORTION OF THE MANDIBLE, THE GUM, THE DENTAL PERIOSTEUM, AND THE DENTAL PULP, IN LONGITUDINAL SECTION.

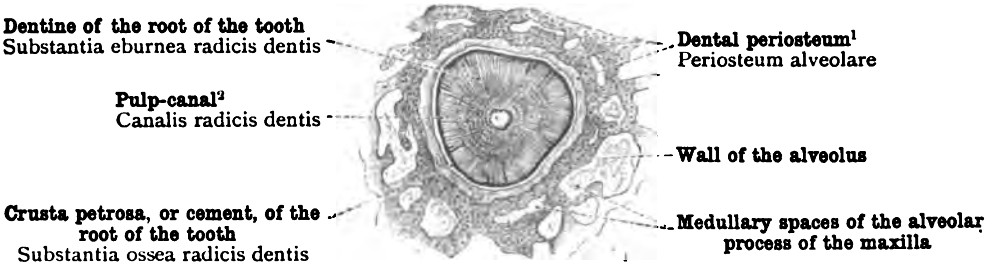

Dentine of the root of the tooth
Substantia eburnea radicis dentis
Pulp-canal[2]
Canalis radicis dentis
Crusta petrosa, or cement, of the root of the tooth
Substantia ossea radicis dentis
Dental periosteum[1]
Periosteum alveolare
Wall of the alveolus
Medullary spaces of the alveolar process of the maxilla

FIG. 691.—THE ROOT OF THE UPPER CENTRAL OR MESIAL INCISOR TOOTH WITH THE ALVEOLUS AND THE DENTAL PERIOSTEUM, IN TRANSVERSE SECTION.

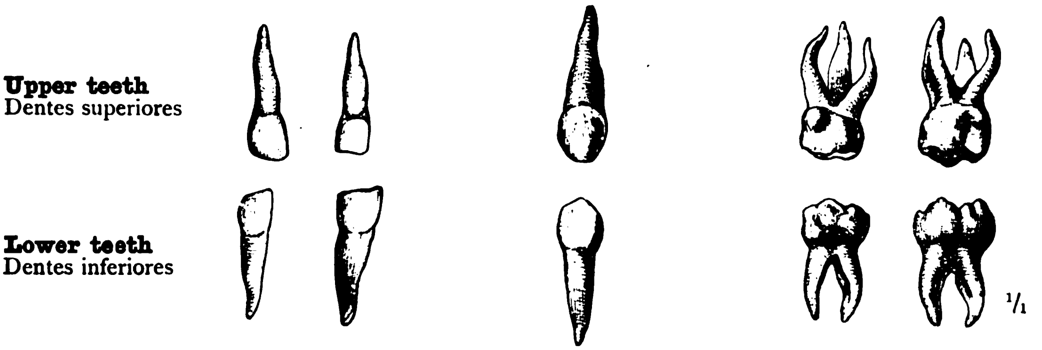
---

[1] The soft vascular tissue between the crusta petrosa or cement of the root and the bone, called here simply *dental periosteum*, is sometimes divisible into two layers: an outer, the *alveolar periosteum*, and an inner, the *peri-odontal membrane*. By some, also, the dental periosteum is named the *pericemental membrane.*—TR.

[2] The term *pulp-canal*, which is in England applied to the minute canal by which the pulp-cavity is entered through the root of the tooth, does not appear to correspond strictly to the author's term *canalis radicis dentis*, which is applied by him alike to the *pulp-canal* and to the *radical portion of the pulp-cavity*.—TR.

[3] The term *root* is applied to all that portion of a tooth which is sunk in the alveolus. This root may consist of one or more *fangs*.—TR.

Dentes—Teeth.

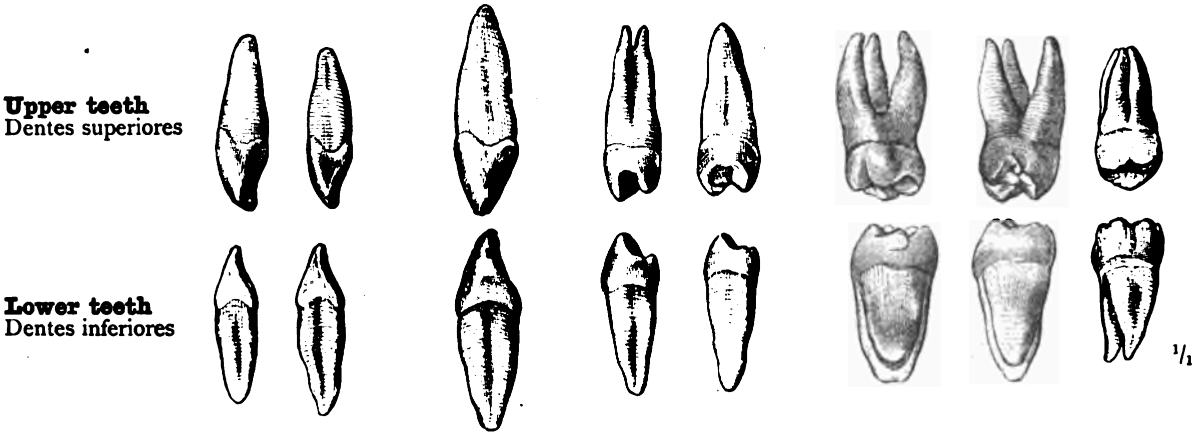


Central or mesial and lateral incisor teeth—Dentes incisivi, medialis et lateralis

Canine tooth—Dens caninus

First and second molar teeth[1]—Dentes molares I., II.

Fig. 692.—Dentes Decidui, Temporary or Deciduous Teeth, or Milk-Teeth, seen from their Outer (Labial and Buccal) Sides.



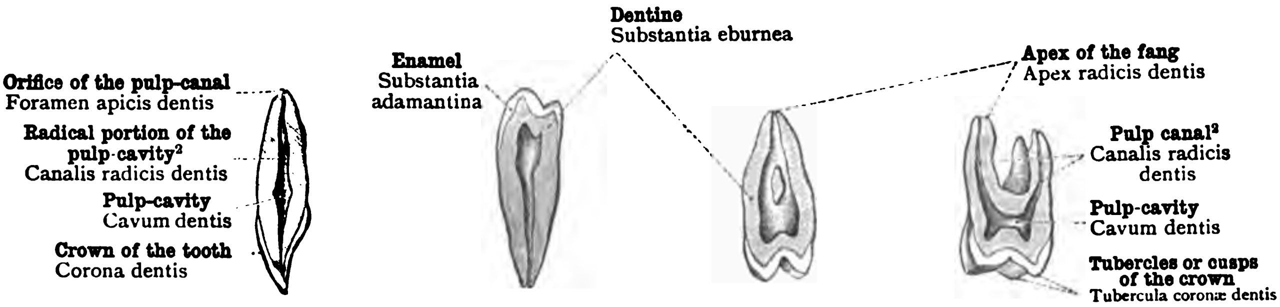
Central or mesial and lateral incisor teeth—Dentes incisivi, medialis et lateralis

Canine tooth—Dens caninus

First and second bicuspid or premolar teeth—Dentes præmolares I., II.

First, second, and third molar teeth[1]—Dentes molares I., II., III.

Fig. 693.—Dentes Permanentes, Permanent Teeth, showing the Outer Edge of the Incisors and Canines, and the Posterior Surface of the Premolars and Molars.



Upper central or mesial incisor tooth—Dens incisivus, superior medialis

Second lower premolar or bicuspid tooth—Dens præmolaris inferior II.

Second upper premolar or bicuspid tooth—Dens præmolaris superior II.

First upper molar tooth—Dens molaris superior I.

Fig. 694.—Pulp-Cavity and Pulp-Canal as seen in Teeth divided longitudinally.

---

[1] Known also as *grinders* or *multicuspids*.

[2] See note [2] to p. 426.

Dentes—Teeth.

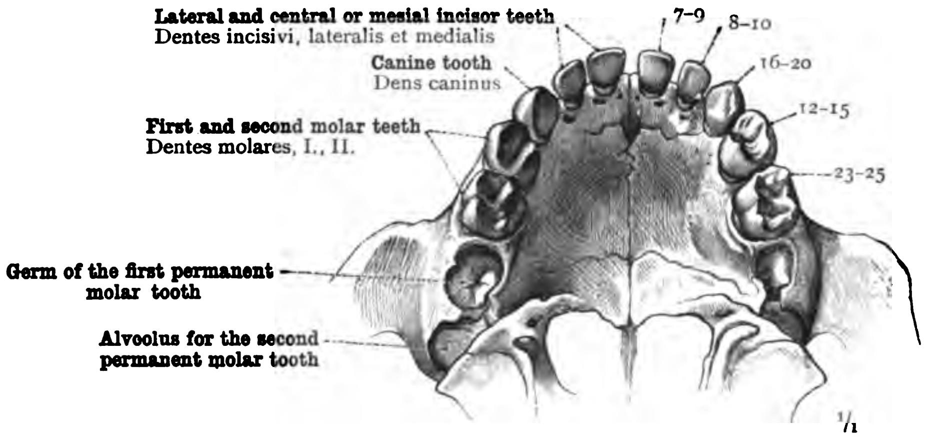

Lateral and central or mesial incisor teeth
Dentes incisivi, lateralis et medialis
Canine tooth
Dens caninus
First and second molar teeth
Dentes molares, I., II.
Germ of the first permanent molar tooth
Alveolus for the second permanent molar tooth
7-9
8-10
16-20
12-15
23-25
1/1

FIG. 695.—DENTES DECIDUI, TEMPORARY OR DECIDUOUS TEETH, OR MILK-TEETH, OF THE UPPER JAW OF A BOY AGED THREE YEARS.

The Arabic numerals indicate the months of life in which the eruption of the individual teeth usually occurs.

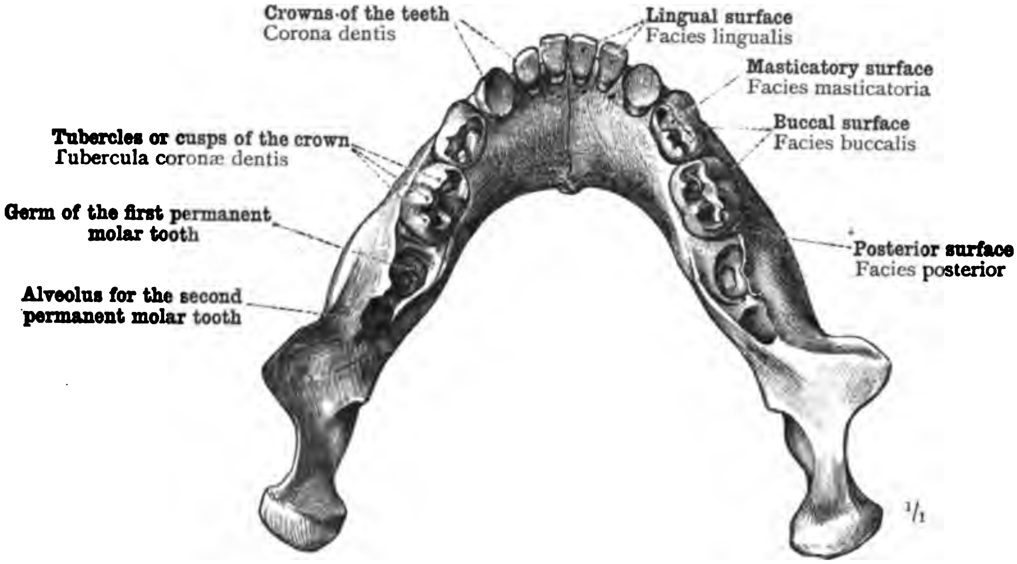
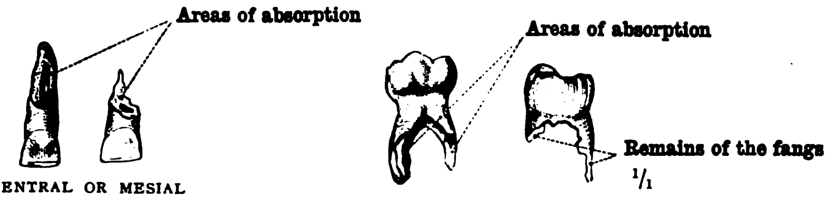


FIG. 696.—DENTES DECIDUI, TEMPORARY OR DECIDUOUS TEETH, OR MILK-TEETH, OF THE LOWER JAW OF A BOY AGED THREE YEARS.



CENTRAL OR MESIAL UPPER INCISOR TOOTH—DENS INCISIVUS, SUPERIOR MEDIALIS

FIRST LOWER MOLAR TOOTH—DENS MOLARIS INFERIOR I.

FIG. 697.—DENTES DECIDUI, TEMPORARY OR DECIDUOUS TEETH, OR MILK-TEETH, IN VARIOUS STAGES OF ABSORPTION, PREPARATORY TO THEIR BEING SHED AND REPLACED BY THE PERMANENT TEETH.

Dentes—Teeth.

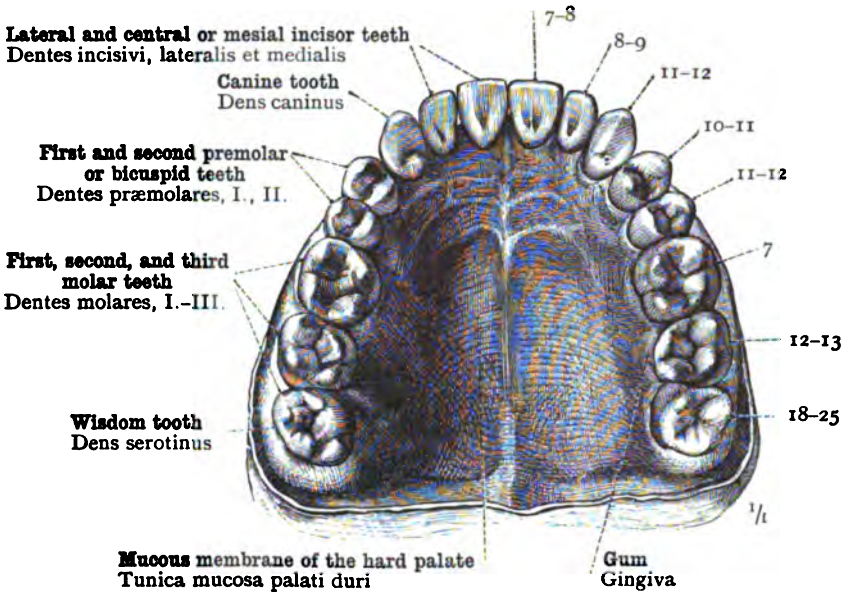

Lateral and central or mesial incisor teeth
Dentes incisivi, lateralis et medialis
Canine tooth
Dens caninus
First and second premolar or bicuspid teeth
Dentes præmolares, I., II.
First, second, and third molar teeth
Dentes molares, I.-III.
Wisdom tooth
Dens serotinus
Mucous membrane of the hard palate
Tunica mucosa palati duri
Gum
Gingiva
7-8
8-9
11-12
10-11
11-12
7
12-13
18-25
1/1

FIG. 698.—DENTES PERMANENTES, PERMANENT TEETH, OF THE UPPER JAW OF A MAN AGED TWENTY-SIX YEARS, WITH THE GUMS. FACIES MASTICATORIÆ, MASTICATORY SURFACES.

The Arabic numerals indicate the years of life in which the eruption of the individual teeth usually occurs.

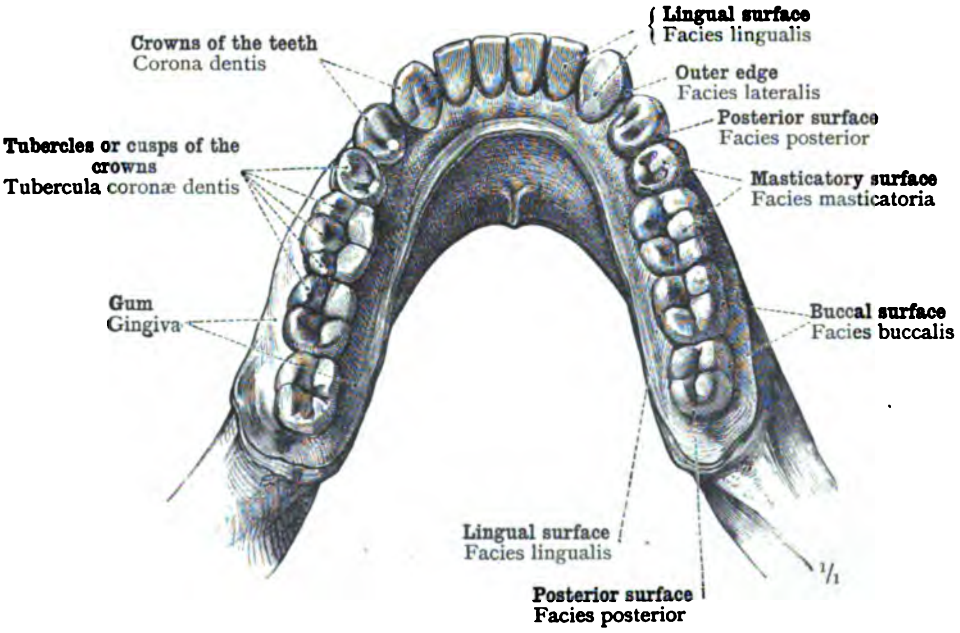


FIG. 699.—DENTES PERMANENTES, PERMANENT TEETH, OF THE LOWER JAW OF A MAN AGED TWENTY-SIX YEARS, WITH THE GUMS. FACIES MASTICATORIÆ, MASTICATORY SURFACES.

Dentes—Teeth.

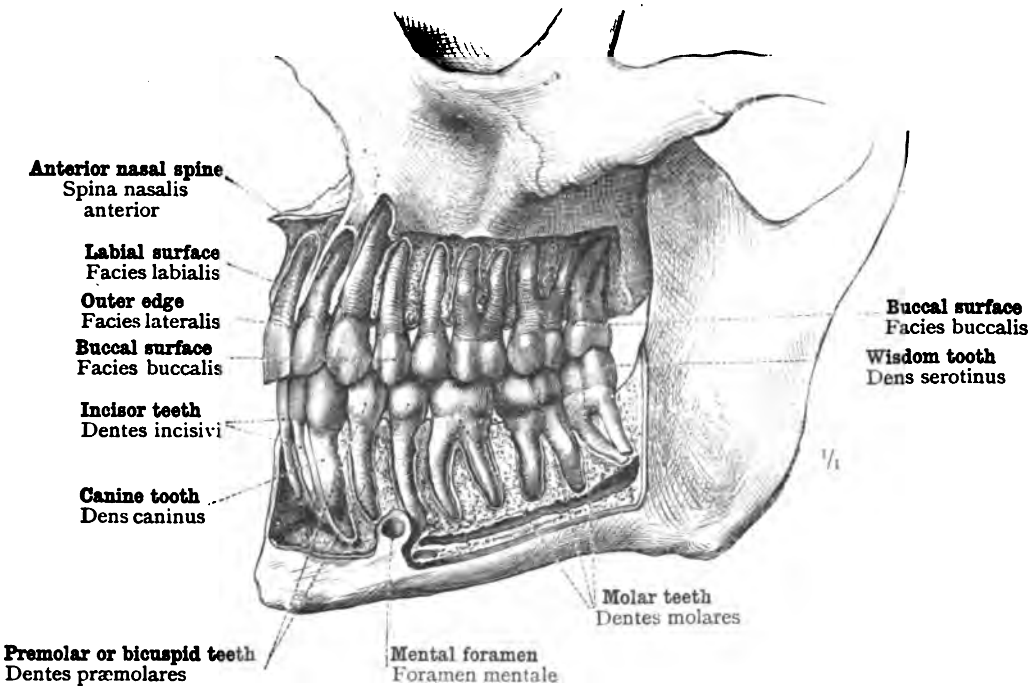


FIG. 700.—LEFT HALF OF THE PERMANENT TEETH, WITH THE ROOTS LAID BARE, SEEN FROM THEIR OUTER (LABIAL AND BUCCAL) SIDES. NORMAL RELATIVE POSITIONS OF UPPER AND LOWER ROWS.

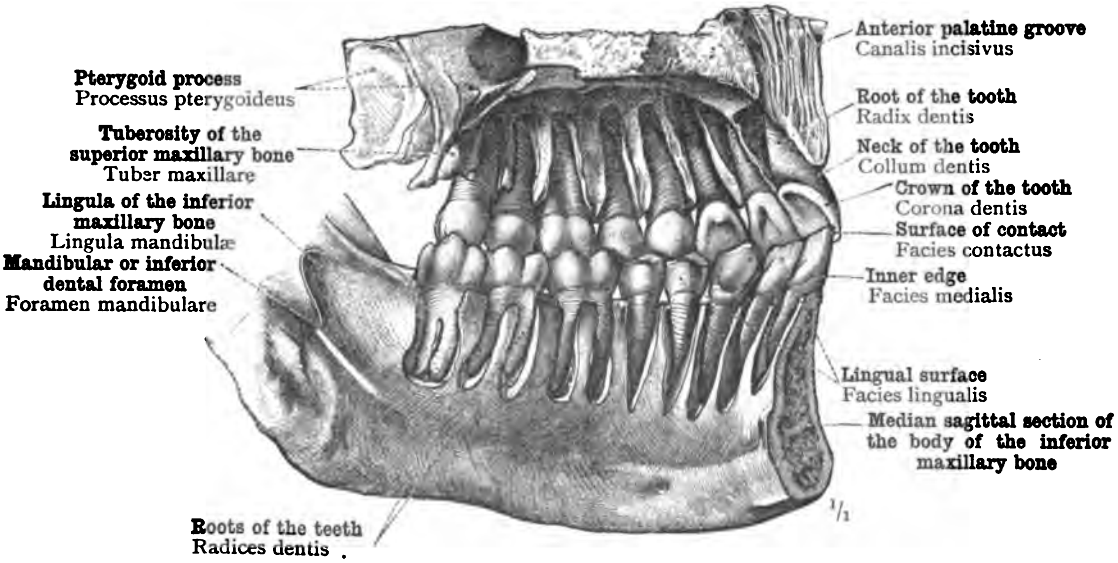


FIG. 701.—LEFT HALF OF THE PERMANENT TEETH, WITH THE ROOTS LAID BARE, SEEN FROM THEIR INNER (LINGUAL) SIDES. NORMAL RELATIVE POSITIONS OF UPPER AND LOWER ROWS.

Dentes—Teeth.

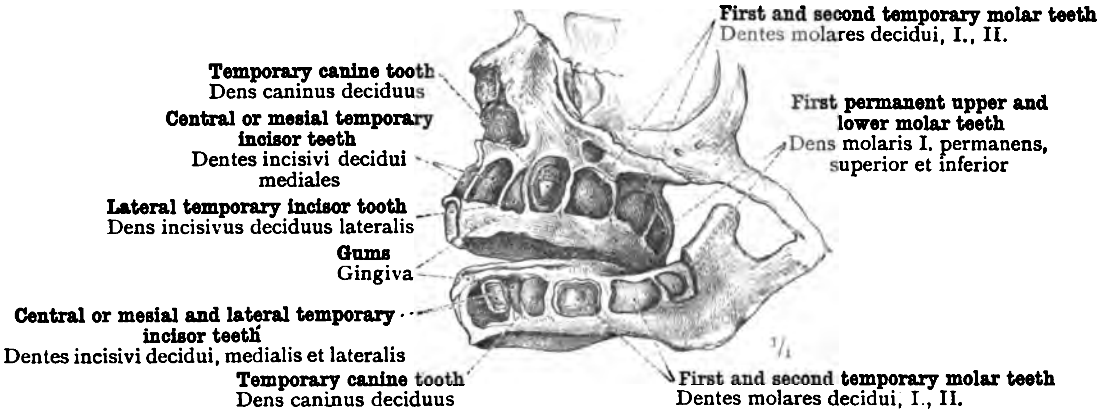

First and second temporary molar teeth
Dentes molares decidui, I., II.
Temporary canine tooth
Dens caninus deciduus
Central or mesial temporary incisor teeth
Dentes incisivi decidui mediales
First permanent upper and lower molar teeth
Dens molaris I. permanens, superior et inferior
Lateral temporary incisor tooth
Dens incisivus deciduus lateralis
Gums
Gingiva
Central or mesial and lateral temporary incisor teeth
Dentes incisivi decidui, medialis et lateralis
1/1
Temporary canine tooth
Dens caninus deciduus
First and second temporary molar teeth
Dentes molares decidui, I., II.

FIG. 702.—DENTAL GERMS (DENTAL SACS) OF AN INFANT BORN AT FULL TERM, DISPLAYED BY THE REMOVAL OF THE WALLS OF THE ALVEOLI ON THE LEFT SIDE OF THE FACE.

The dental sacs of the upper canine, the lower central incisor, and the first lower molar temporary teeth have been opened, in order to show the teeth developing in their interior.

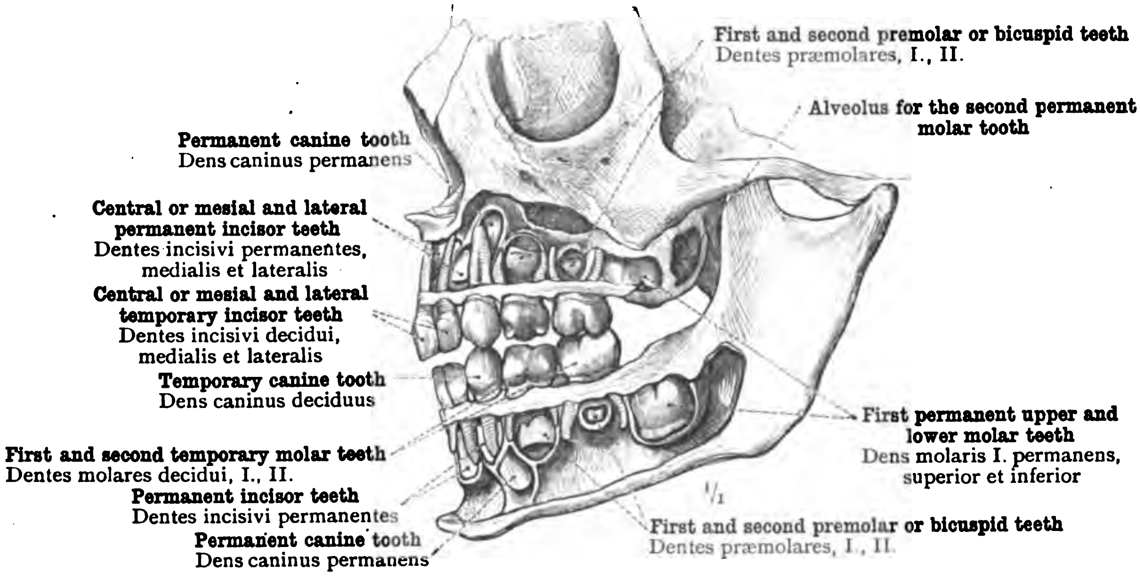

First and second premolar or bicuspid teeth
Dentes præmolares, I., II.
Alveolus for the second permanent molar tooth
Permanent canine tooth
Dens caninus permanens
Central or mesial and lateral permanent incisor teeth
Dentes incisivi permanentes, medialis et lateralis
Central or mesial and lateral temporary incisor teeth
Dentes incisivi decidui, medialis et lateralis
Temporary canine tooth
Dens caninus deciduus
First permanent upper and lower molar teeth
Dens molaris I. permanens, superior et inferior
First and second temporary molar teeth
Dentes molares decidui, I., II.
Permanent incisor teeth
Dentes incisivi permanentes
1/1
Permanent canine tooth
Dens caninus permanens
First and second premolar or bicuspid teeth
Dentes præmolares, I., II.

FIG. 703.—LEFT HALF OF THE TEMPORARY OR DECIDUOUS TEETH, OR MILK-TEETH, OF A BOY AGED TWO AND A HALF YEARS.

By the removal of the appropriate portions of the alveolar walls, the germs of the permanent teeth have been exposed, and the relation of these germs to the roots of the temporary teeth has been made manifest.

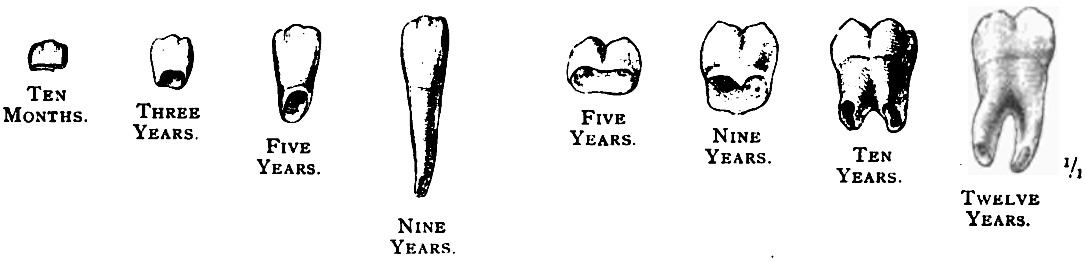


FIG. 704.—STAGES OF DEVELOPMENT OF THE LATERAL PERMANENT INCISOR TOOTH AND OF THE SECOND LOWER PERMANENT MOLAR TOOTH.

The fourth tooth of each series was already cut.

Dentes—Teeth.

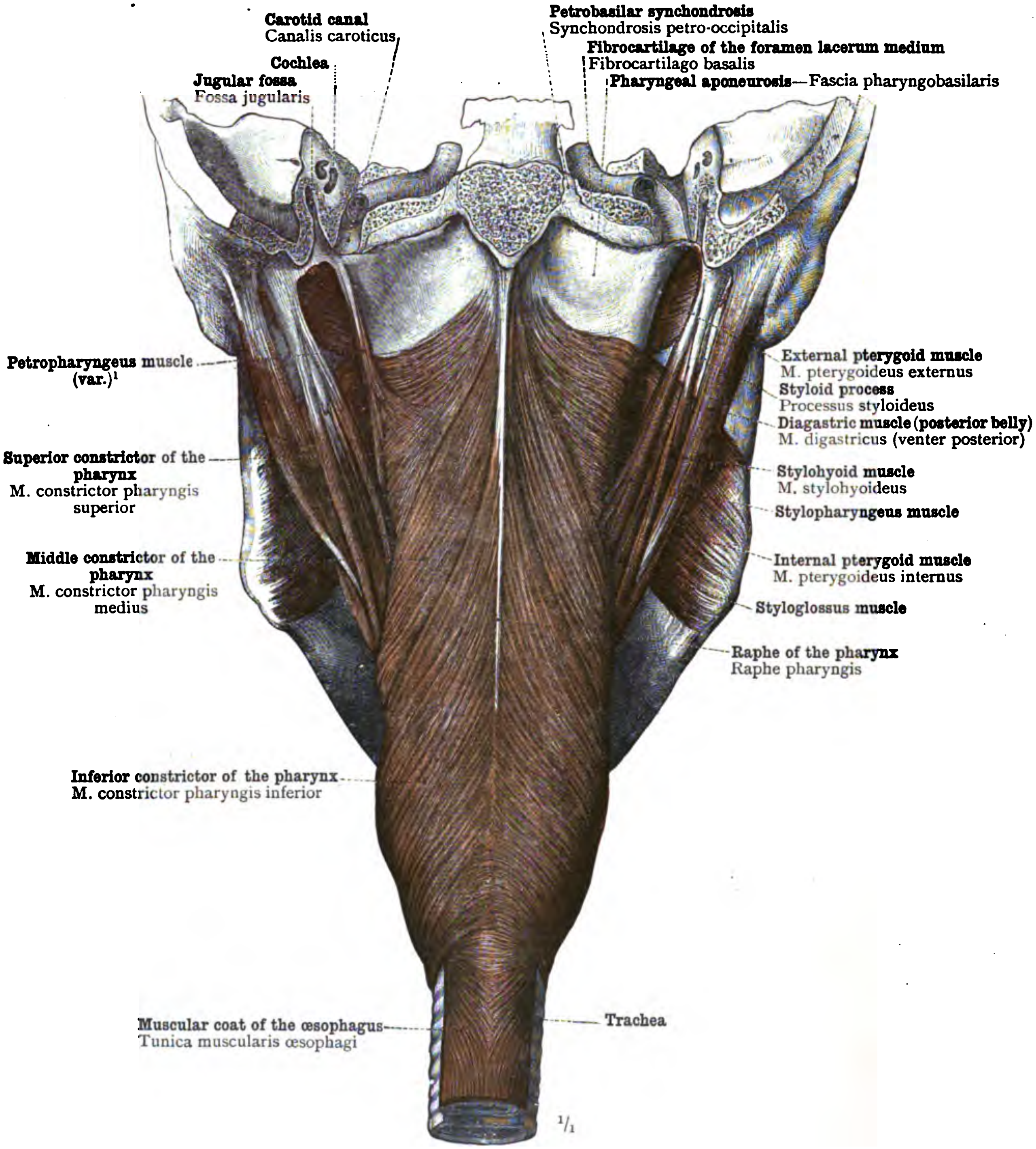

Carotid canal
Canalis caroticus
Cochlea
Jugular fossa
Fossa jugularis
Petrobasilar synchondrosis
Synchondrosis petro-occipitalis
Fibrocartilage of the foramen lacerum medium
Fibrocartilago basalis
Pharyngeal aponeurosis—Fascia pharyngobasilaris
Petropharyngeus muscle (var.)[1]
Superior constrictor of the **pharynx**
M. constrictor pharyngis superior
Middle constrictor of the **pharynx**
M. constrictor pharyngis medius
External pterygoid muscle
M. pterygoideus externus
Styloid process
Processus styloideus
Diagastric muscle (posterior belly)
M. digastricus (venter posterior)
Stylohyoid muscle
M. stylohyoideus
Stylopharyngeus muscle
Internal pterygoid muscle
M. pterygoideus internus
Styloglossus muscle
Raphe of the pharynx
Raphe pharyngis
Inferior constrictor of the pharynx
M. constrictor pharyngis inferior
Muscular coat of the œsophagus
Tunica muscularis œsophagi
Trachea
1/1

FIG. 705.—THE PHARYNX, AND ITS TRANSITION INTO THE ŒSOPHAGUS, SEEN FROM BEHIND. BY THE REMOVAL OF THE TUNICA ADVENTITIA PHARYNGIS,[2] THE OUTER MUSCULAR LAYER OF THE PHARYNX HAS BEEN LAID BARE: MUSCULI CONSTRICTORES PHARYNGIS, SUPERIOR, MEDIUS, ET INFERIUS; THE SUPERIOR, MIDDLE, AND INFERIOR CONSTRICTORS OF THE PHARYNX. THE MUSCLES ARISING FROM THE STYLOID PROCESS, AND THE POSTERIOR BELLY OF THE DIGASTRIC MUSCLE. THE PHARYNGEAL APONEUROSIS.

[1] *Petropharyngeus Muscle.*—This, the commonest of the supernumerary elevators of the pharynx, arises from the under surface of the petrous bone in front of the carotid canal, or from the vaginal process of the temporal bone. Others, less often met with, are the *sphenopharyngeus*, arising from the spine of the sphenoid; *petropharyngeus externus*, arising from the hamular process; *occipitopharyngeus*, arising from the basilar process; and the *mastopharyngeus* (very rare), arising from the mastoid process. They are inserted variably into one or other of the constrictors, or, passing between these muscles, directly into the fibrous layer of the pharynx (pharyngeal aponeurosis). Another occasional accessory slip is the *azygos pharyngis*, passing from the pharyngeal tubercle of the occipital bone to the raphe or to the posterior wall of the pharynx.—TR.

[2] See note [1] to p. 466.

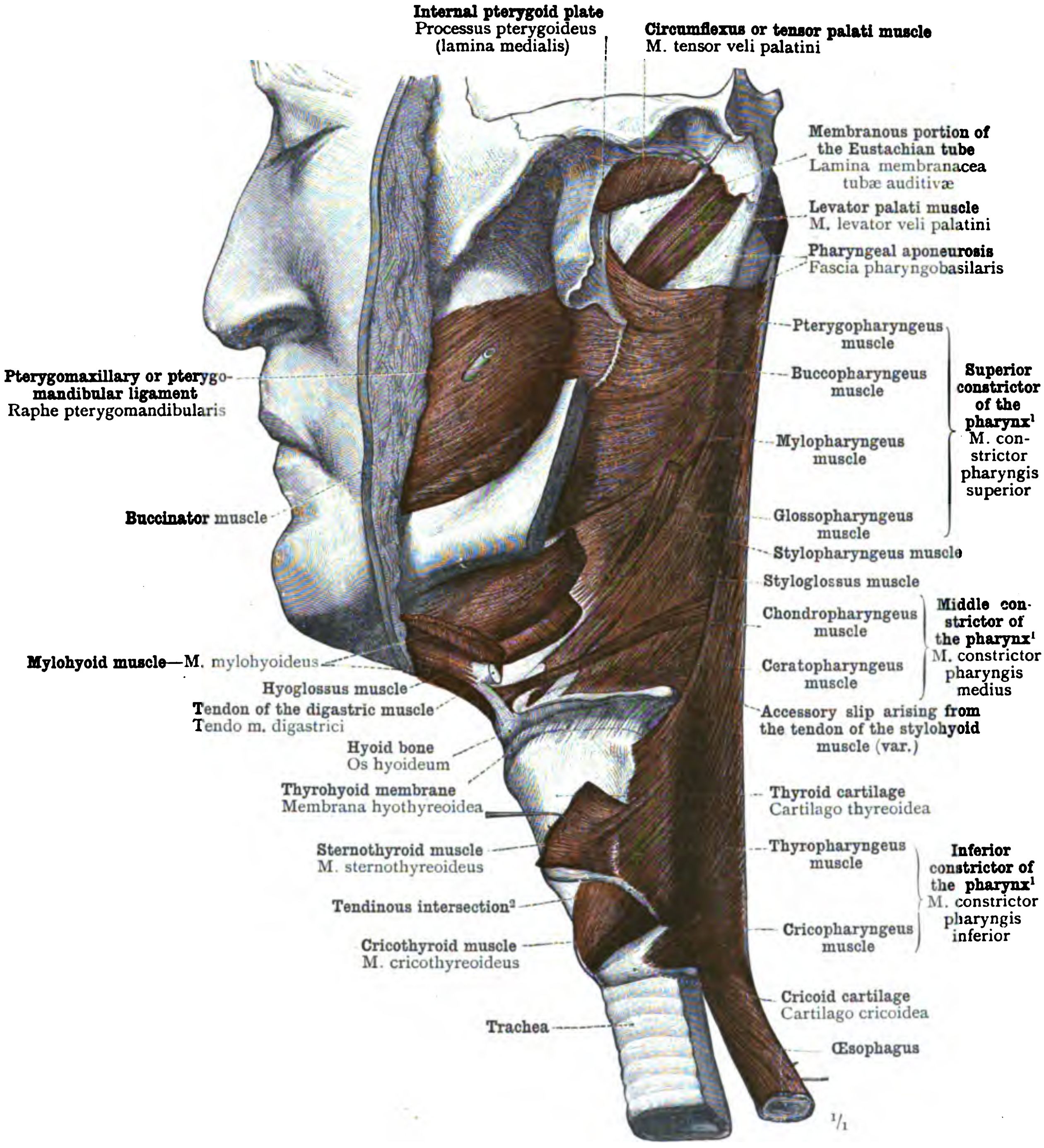


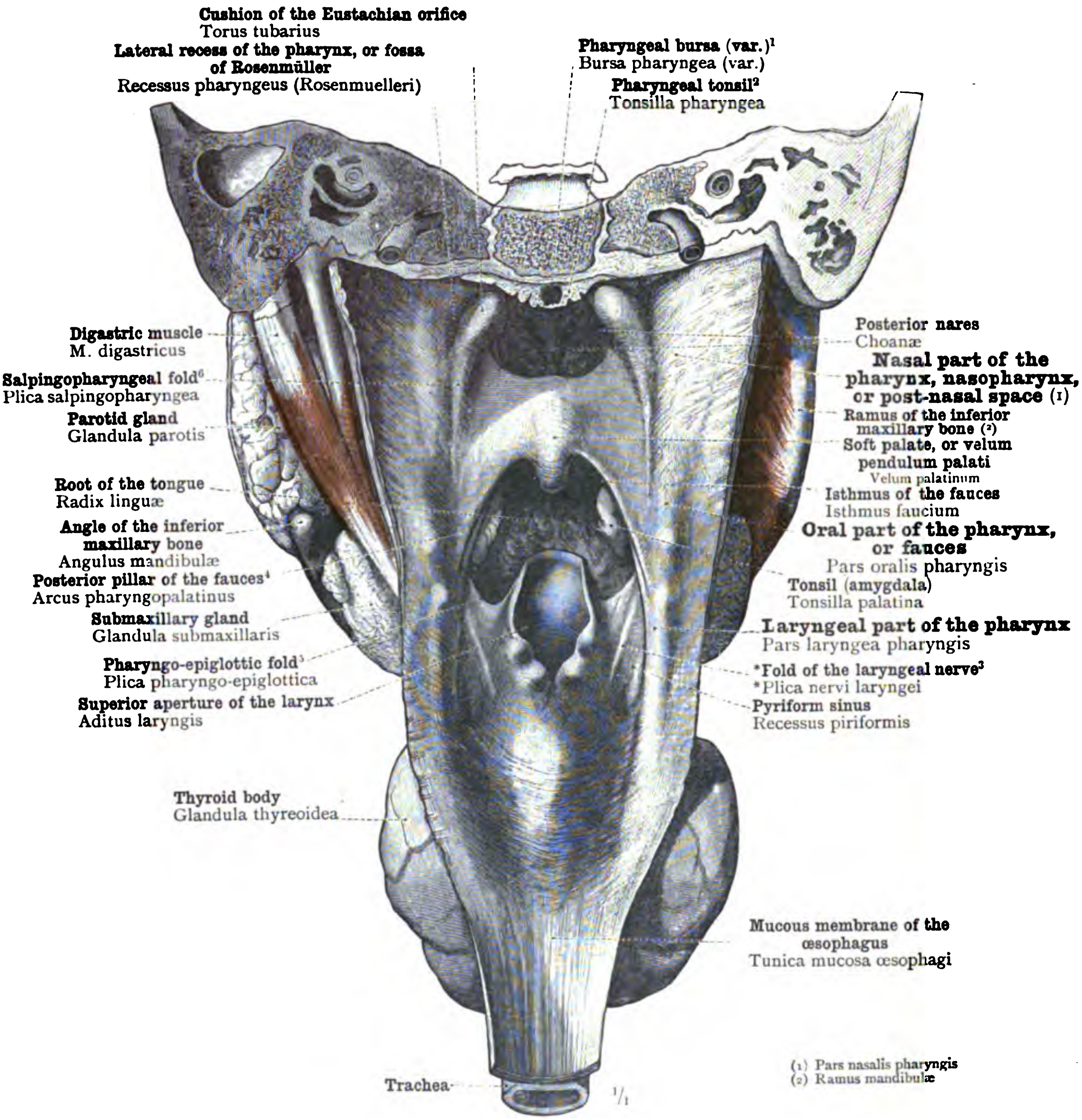
FIG. 706.—OUTER MUSCULAR LAYER OF THE PHARYNX, LAID BARE ON THE LEFT SIDE, BY THE REMOVAL OF THE RAMUS OF THE INFERIOR MAXILLARY BONE, THE MUSCLES ARISING FROM THE STYLOID PROCESS, THE POSTERIOR BELLY OF THE DIGASTRIC MUSCLE, AND THE MYLOHYOID MUSCLE: MUSCULI CONSTRICTORES PHARYNGIS, THE THREE CONSTRICTORS OF THE PHARYNX, WITH THEIR VARIOUS SUBDIVISIONS (*see note* [1] *above*). CONNEXION OF THE BUCCINATOR MUSCLE WITH THE SUPERIOR CONSTRICTOR OF THE PHARYNX BY MEANS OF THE PTERYGOMAXILLARY OR PTERYGOMANDIBULAR LIGAMENT.

The Pharynx.

---

[1] *Constrictors of the Pharynx.*—As the names given by the author to the different portions of these muscles are not often used in England, it seems expedient to explain their signification. Of the *superior constrictor:* the *pterygopharyngeus* is that portion which arises from the lower third of the hinder edge of the internal pterygoid plate and from the hamular process; the *buccopharyngeus* is that portion which arises from the pterygomaxillary ligament, by means of which it is connected with the origin of the buccinator muscle; the *mylopharyngeus* is that portion which arises from the posterior fifth of the internal oblique line or mylohyoid ridge of the inferior maxillary bone; and the *glossopharyngeus* is that portion which arises from the side of the tongue. Of the *middle constrictor:* the *chondropharyngeus* is that portion which arises from the small cornu of the hyoid bone and the stylohyoid ligament; and the *ceratopharyngeus* is that portion which arises from the great cornu of the hyoid bone. Of the *inferior constrictor:* the *thyropharyngeus* is that portion which arises from the inferior cornu, oblique line or ligament, and superior tubercle of the thyroid cartilage; and the *cricopharyngeus* is that portion which arises from a flat ridge on the side of the cricoid cartilage.—TR.

[2] *Tendinous Intersection.*—Some of the superficial fibres of the cricothyroid muscle are almost always continuous with those of the inferior constrictor of the pharynx. Commonly, however, as here, a tendinous intersection across these fibres marks the boundary between the two muscles.—TR.



[1] The *pharyngeal bursa*, or *mesial recess of the pharynx*, is a flask-shaped pit in the mucous membrane, constant in the fœtus and the infant, and occasionally persistent in the adult. Its narrow orifice is on the posterior wall of the nasopharynx, immediately beneath the pharyngeal tonsil, and looks downwards and forwards. Widening within, the cavity passes upwards and then curves forwards through the substance of the pharyngeal tonsil, and terminates blindly in the median line immediately above the summit of the pharynx, its fundus being just below the pharyngeal tubercle.—Tr.

[2] See note 1 to p. 411.

[3] **Fold of the Laryngeal Nerve*.—"Within the pyriform sinus a fold of mucous membrane running obliquely downwards and inwards is occasionally to be seen. This fold is occupied by the superior laryngeal nerve, and is therefore called *plica nervi laryngei*—the *fold of the laryngeal nerve*."—Von Langer and Toldt's "Anatomy," 7th ed., p. 301.

[4] Known also as the *posterior palatine*, or *pharyngopalatine, arch*.

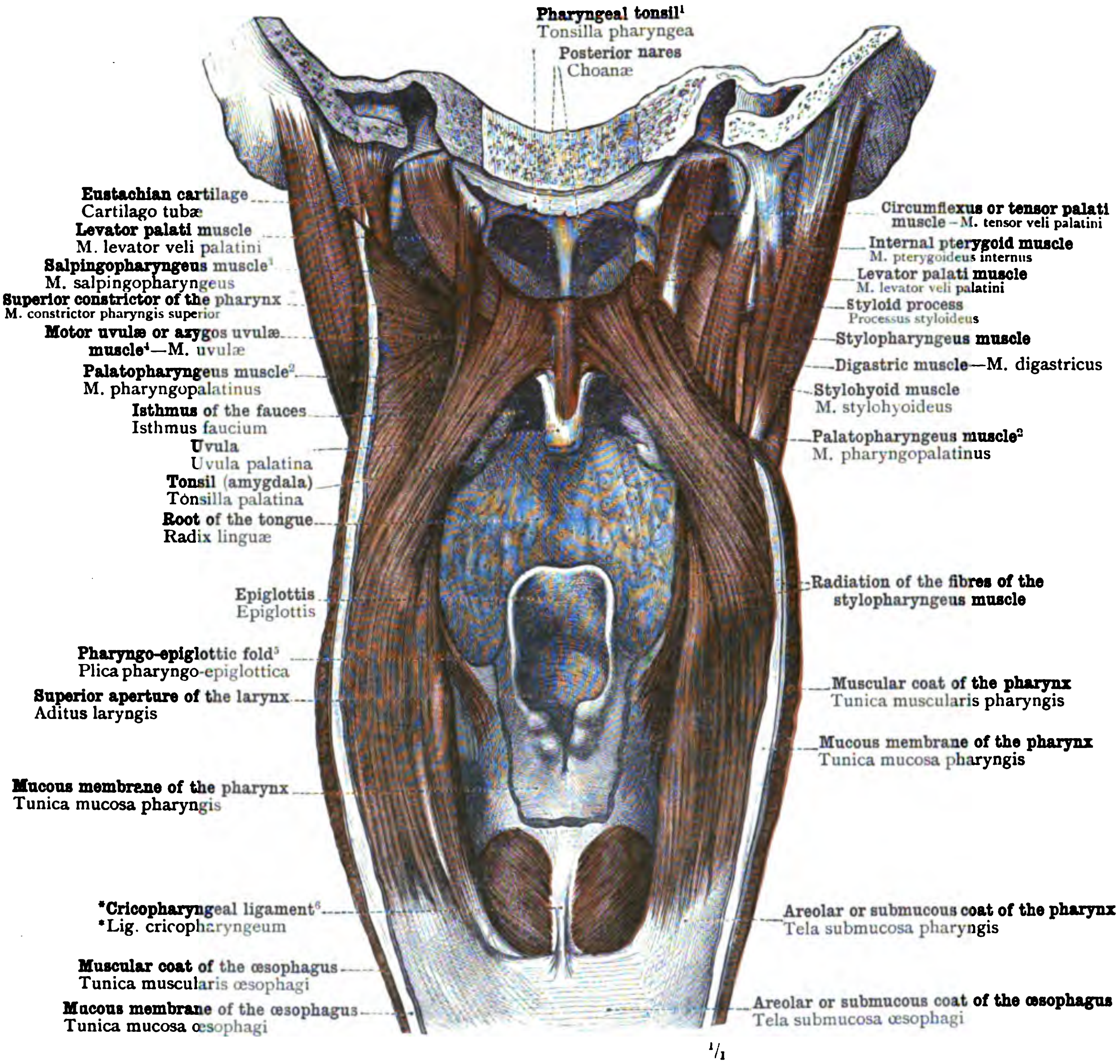
[5] See note 7 to p. 415.

[6] See Appendix, note 4.

FIG. 707.—CAVUM PHARYNGIS, THE PHARYNGEAL CAVITY, SEEN FROM BEHIND. TUNICA MUCOSA PHARYNGIS, THE MUCOUS MEMBRANE OF THE PHARYNX. THE THREE DIVISIONS OF THE PHARYNX: PARS NASALIS PHARYNGIS, THE NASAL PART OF THE PHARYNX, NASOPHARYNX, OR POST-NASAL SPACE; PARS ORALIS PHARYNGIS, THE ORAL PART OF THE PHARYNX, OR FAUCES; PARS LARYNGEA PHARYNGIS, THE LARYNGEAL PART OF THE PHARYNX. THE OPENINGS INTO THE PHARYNGEAL CAVITY.

The posterior wall of the pharynx was divided throughout in the median line, separated from its attachments to the base of the skull, and then turned outwards on each side.

The Pharynx.


Pharyngeal tonsil[1]
Tonsilla pharyngea
Posterior nares
Choanæ
Eustachian cartilage
Cartilago tubæ
Levator palati muscle
M. levator veli palatini
Salpingopharyngeus muscle[3]
M. salpingopharyngeus
Superior constrictor of the pharynx
M. constrictor pharyngis superior
Motor uvulæ or azygos uvulæ muscle[4]—M. uvulæ
Palatopharyngeus muscle[2]
M. pharyngopalatinus
Isthmus of the fauces
Isthmus faucium
Uvula
Uvula palatina
Tonsil (amygdala)
Tonsilla palatina
Root of the tongue
Radix linguæ
Epiglottis
Epiglottis
Pharyngo-epiglottic fold[5]
Plica pharyngo-epiglottica
Superior aperture of the larynx
Aditus laryngis
Mucous membrane of the pharynx
Tunica mucosa pharyngis
*Cricopharyngeal ligament[6]
*Lig. cricopharyngeum
Muscular coat of the œsophagus
Tunica muscularis œsophagi
Mucous membrane of the œsophagus
Tunica mucosa œsophagi
Circumflexus or tensor palati muscle—M. tensor veli palatini
Internal pterygoid muscle
M. pterygoideus internus
Levator palati muscle
M. levator veli palatini
Styloid process
Processus styloideus
Stylopharyngeus muscle
Digastric muscle—M. digastricus
Stylohyoid muscle
M. stylohyoideus
Palatopharyngeus muscle[2]
M. pharyngopalatinus
Radiation of the fibres of the stylopharyngeus muscle
Muscular coat of the pharynx
Tunica muscularis pharyngis
Mucous membrane of the pharynx
Tunica mucosa pharyngis
Areolar or submucous coat of the pharynx
Tela submucosa pharyngis
Areolar or submucous coat of the œsophagus
Tela submucosa œsophagi
1/1

[1] See note [1] to p. 411.
[2] See note [1] to p. 417.
[3] *Salpingopharyngeus Muscle.*—This consists of a few slender fasciculi which descend from the lower and anterior part of the Eustachian cartilage to the wall of the pharynx. It is usually regarded as an accessory portion of the palatopharyngeus muscle.—TR.
[4] See note [1] to p. 418.
[5] See note [7] to p. 415.
[6] See Fig. 771, p. 459, and note [1] on same page.

FIG. 708.—MUSCLES OF THE SOFT PALATE (VELUM PENDULUM PALATI), AND THE VERTICAL MUSCLES (ELEVATORS) OF THE PHARYNX, DISPLAYED BY OPENING THE PHARYNX FROM BEHIND BY A MEDIAN LONGITUDINAL INCISION AND REMOVING THE MUCOUS MEMBRANE.

On the right side, the levator palati muscle and a small portion of the wall of the pharynx have been removed, in order to display the circumflexus or tensor palati muscle and a great part of the stylopharyngeus muscle. In the immediate neighbourhood of the superior aperture of the larynx (aditus laryngis), the mucous membrane of the pharynx has not been removed; also along the borders of the median longitudinal incision a narrow strip of the mucous membrane has been left.

The Pharynx.

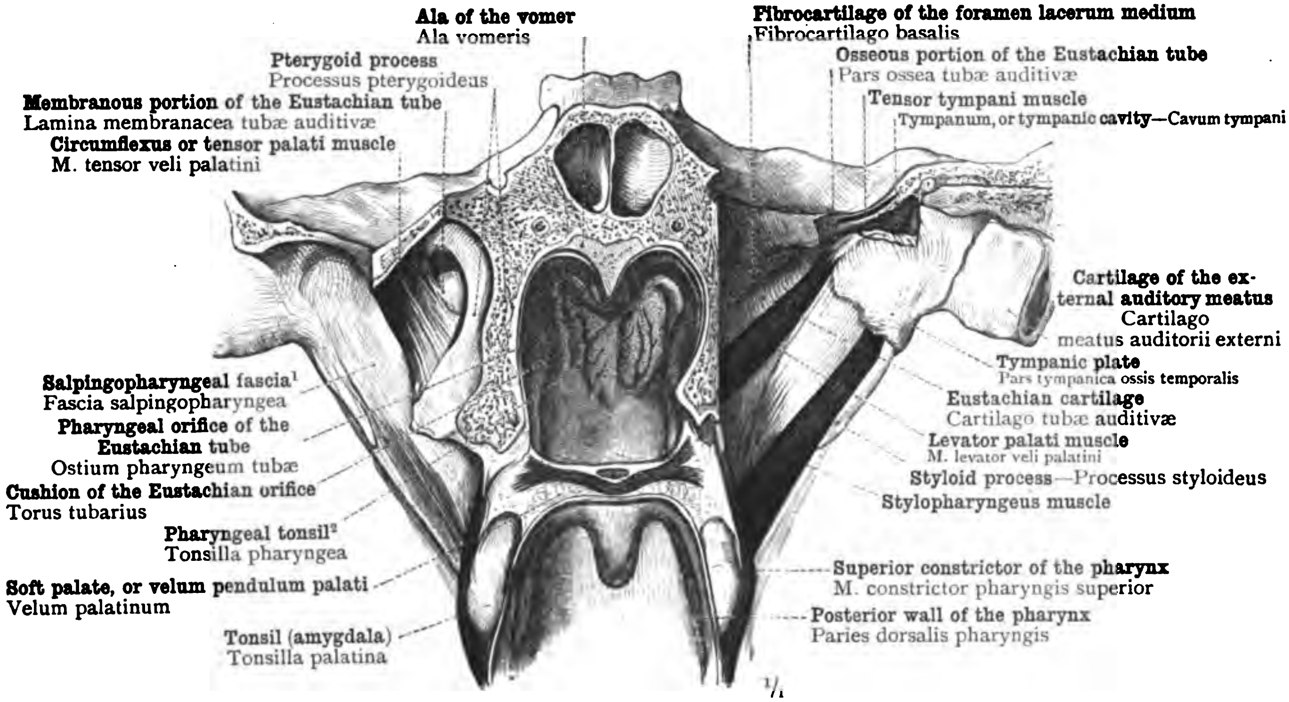

Ala of the vomer
Ala vomeris
Pterygoid process
Processus pterygoideus
Membranous portion of the Eustachian tube
Lamina membranacea tubæ auditivæ
Circumflexus or tensor palati muscle
M. tensor veli palatini
Salpingopharyngeal fascia[1]
Fascia salpingopharyngea
Pharyngeal orifice of the Eustachian tube
Ostium pharyngeum tubæ
Cushion of the Eustachian orifice
Torus tubarius
Pharyngeal tonsil[2]
Tonsilla pharyngea
Soft palate, or velum pendulum palati
Velum palatinum
Tonsil (amygdala)
Tonsilla palatina
Fibrocartilage of the foramen lacerum medium
Fibrocartilago basalis
Osseous portion of the Eustachian tube
Pars ossea tubæ auditivæ
Tensor tympani muscle
Tympanum, or tympanic cavity—Cavum tympani
Cartilage of the external auditory meatus
Cartilago meatus auditorii externi
Tympanic plate
Pars tympanica ossis temporalis
Eustachian cartilage
Cartilago tubæ auditivæ
Levator palati muscle
M. levator veli palatini
Styloid process—Processus styloideus
Stylopharyngeus muscle
Superior constrictor of the pharynx
M. constrictor pharyngis superior
Posterior wall of the pharynx
Paries dorsalis pharyngis
1/1

FIG. 709.—PARS NASALIS PHARYNGIS, THE NASAL PART OF THE PHARYNX, NASOPHARYNX, OR POST-NASAL SPACE, SEEN FROM BEFORE. CORONAL SECTION THROUGH THE HEAD. TONSILLA PHARYNGEA, THE PHARYNGEAL TONSIL.

On the left side, the greater part of the pterygoid process, the anterior wall of the tympanum, and the outer wall of the Eustachian tube, have been removed.

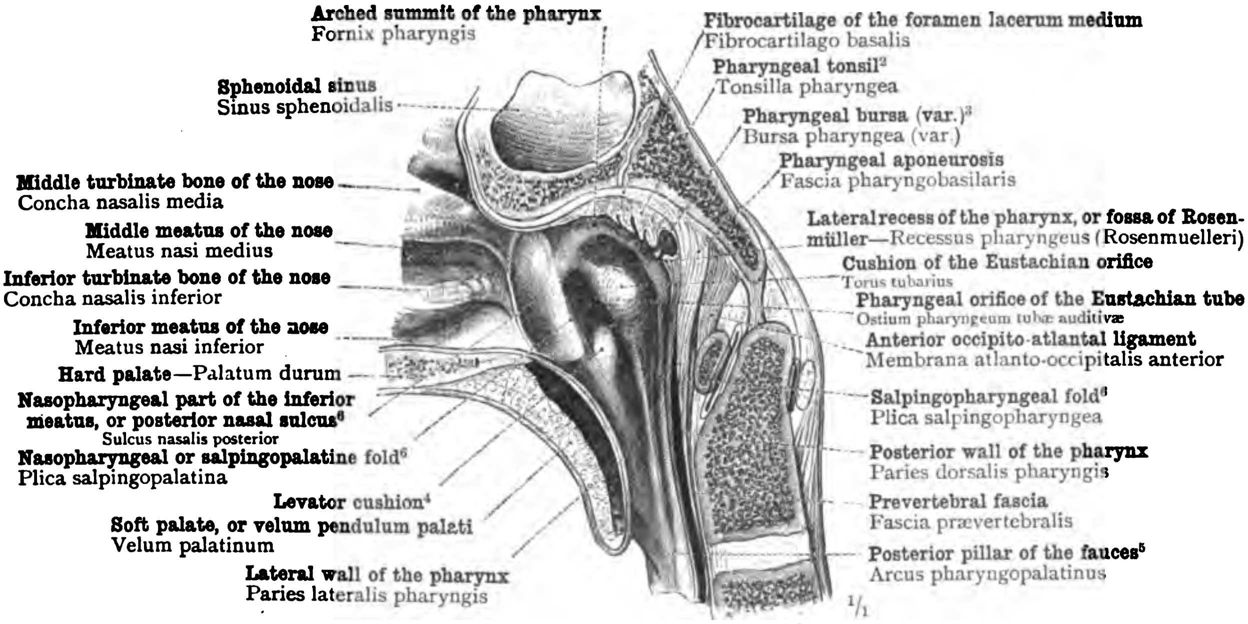

Arched summit of the pharynx
Fornix pharyngis
Sphenoidal sinus
Sinus sphenoidalis
Middle turbinate bone of the nose
Concha nasalis media
Middle meatus of the nose
Meatus nasi medius
Inferior turbinate bone of the nose
Concha nasalis inferior
Inferior meatus of the nose
Meatus nasi inferior
Hard palate—Palatum durum
Nasopharyngeal part of the inferior meatus, or posterior nasal sulcus[6]
Sulcus nasalis posterior
Nasopharyngeal or salpingopalatine fold[6]
Plica salpingopalatina
Levator cushion[4]
Soft palate, or velum pendulum palati
Velum palatinum
Lateral wall of the pharynx
Paries lateralis pharyngis
Fibrocartilage of the foramen lacerum medium
Fibrocartilago basalis
Pharyngeal tonsil[2]
Tonsilla pharyngea
Pharyngeal bursa (var.)[3]
Bursa pharyngea (var.)
Pharyngeal aponeurosis
Fascia pharyngobasilaris
Lateral recess of the pharynx, or fossa of Rosenmüller—Recessus pharyngeus (Rosenmuelleri)
Cushion of the Eustachian orifice
Torus tubarius
Pharyngeal orifice of the Eustachian tube
Ostium pharyngeum tubæ auditivæ
Anterior occipito-atlantal ligament
Membrana atlanto-occipitalis anterior
Salpingopharyngeal fold[6]
Plica salpingopharyngea
Posterior wall of the pharynx
Paries dorsalis pharyngis
Prevertebral fascia
Fascia prævertebralis
Posterior pillar of the fauces[5]
Arcus pharyngopalatinus
1/1

FIG. 710.—PARS NASALIS PHARYNGIS, THE NASAL PART OF THE PHARYNX, NASOPHARYNX, OR POST-NASAL SPACE, AND ITS CONNEXION WITH THE NASAL FOSSÆ, IN MEDIAN SAGITTAL SECTION. VIEW OF THE RIGHT LATERAL WALL OF THE NASOPHARYNX, WITH THE PHARYNGEAL ORIFICE OF THE EUSTACHIAN TUBE. TONSILLA PHARYNGEA, THE PHARYNGEAL TONSIL; BURSA PHARYNGEA, THE PHARYNGEAL BURSA. SULCUS NASALIS POSTERIOR, THE NASOPHARYNGEAL PART OF THE INFERIOR MEATUS OF THE NOSE, OR *POSTERIOR NASAL SULCUS, CORRESPONDING TO THE NASOPHARYNGEAL MEATUS (*see Part I., p.* 90, *Fig.* 203); PLICA SALPINGOPALATINA, THE NASOPHARYNGEAL OR SALPINGOPALATINE FOLD; PLICA SALPINGOPHARYNGEA, THE SALPINGOPHARYNGEAL FOLD.[4]

---

[1] *Salpingopharyngeal Fascia.*—Quain applies this name to the membranous portion of the Eustachian tube itself, but the author uses it to denote strands of fibrous tissue passing from the Eustachian cartilage to the submucous areolar tissue of the pharynx.—TR.

[2] See note [1] to p. 411.

[3] See note [1] to p. 434.

[4] —"When the levatores palati are contracted, the upper surface of the soft palate presents a convex eminence behind each posterior naris, called the *levator cushion.* This is occasionally seen in the dead body."—Quain's "Anatomy," vol. iii., part iv., p. 57. See also Appendix, note 4.

[5] Known also as the *posterior palatine*, or *pharyngopalatine, arch.*

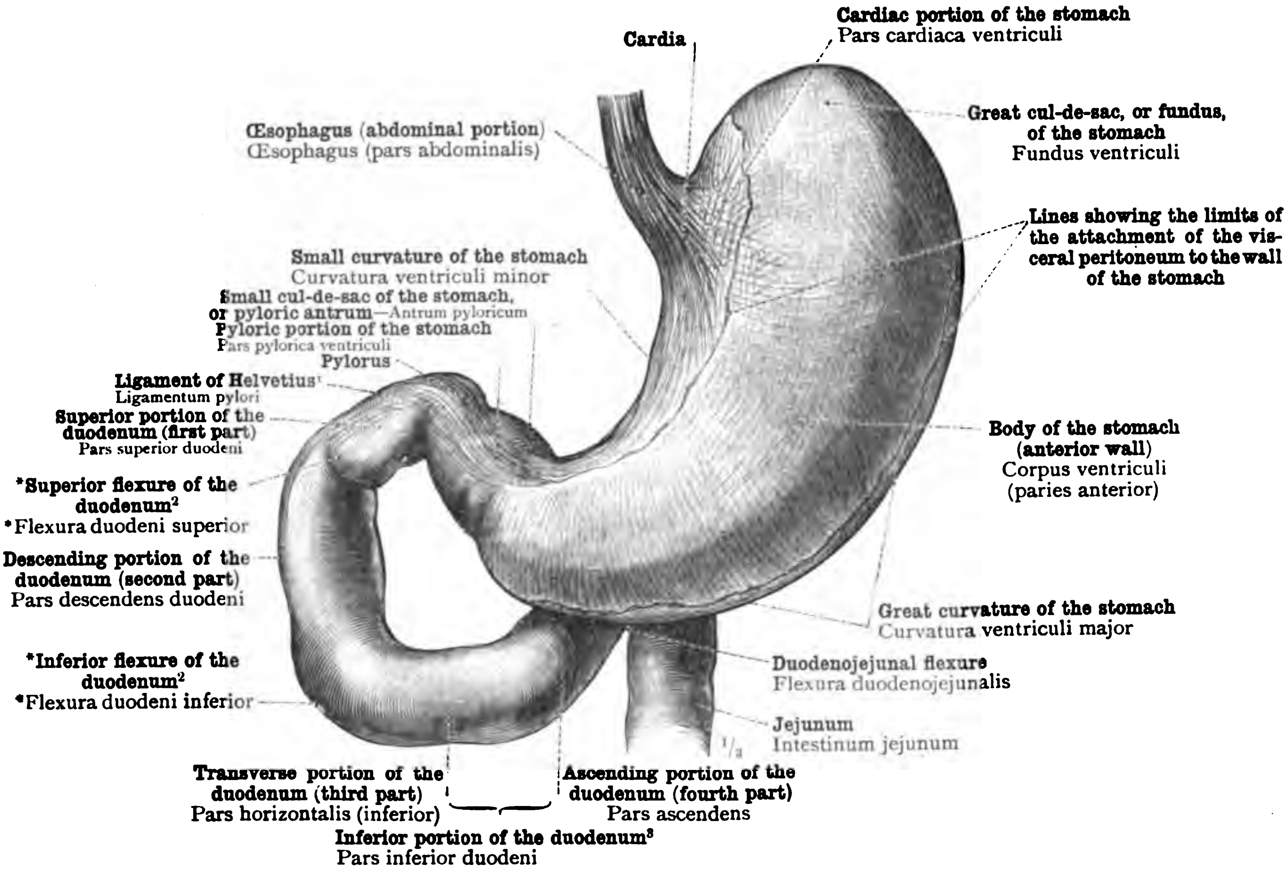
[6] See Appendix, note 4.

The Pharynx.

ABDOMINAL AND PELVIC PORTIONS

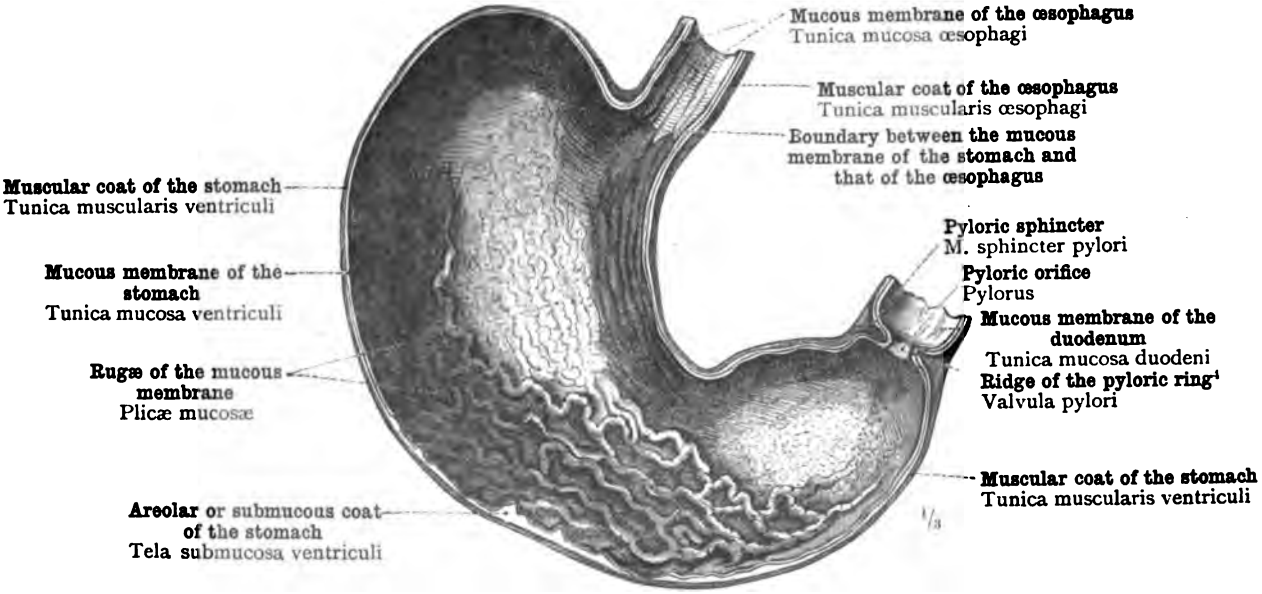
OF THE

DIGESTIVE ORGANS


Cardia
Cardiac portion of the stomach
Pars cardiaca ventriculi
Œsophagus (abdominal portion)
Œsophagus (pars abdominalis)
Great cul-de-sac, or fundus, of the stomach
Fundus ventriculi
Lines showing the limits of the attachment of the visceral peritoneum to the wall of the stomach
Small curvature of the stomach
Curvatura ventriculi minor
Small cul-de-sac of the stomach, or pyloric antrum—Antrum pyloricum
Pyloric portion of the stomach
Pars pylorica ventriculi
Pylorus
Ligament of Helvetius[1]
Ligamentum pylori
Superior portion of the duodenum (first part)
Pars superior duodeni
*Superior flexure of the duodenum[2]
*Flexura duodeni superior
Body of the stomach (anterior wall)
Corpus ventriculi (paries anterior)
Descending portion of the duodenum (second part)
Pars descendens duodeni
Great curvature of the stomach
Curvatura ventriculi major
*Inferior flexure of the duodenum[2]
*Flexura duodeni inferior
Duodenojejunal flexure
Flexura duodenojejunalis
Jejunum
Intestinum jejunum
1/3
Transverse portion of the duodenum (third part)
Pars horizontalis (inferior)
Ascending portion of the duodenum (fourth part)
Pars ascendens
Inferior portion of the duodenum[3]
Pars inferior duodeni

[1] See Appendix, note 5. [2] See Appendix, note 6. [3] See Appendix, note 7.

FIG. 711.—VENTRICULUS, THE STOMACH, MODERATELY DISTENDED, WITH THE LOWEST PORTION OF THE ŒSOPHAGUS, AND THE DUODENUM. SEEN FROM BEFORE.


Mucous membrane of the œsophagus
Tunica mucosa œsophagi
Muscular coat of the œsophagus
Tunica muscularis œsophagi
Boundary between the mucous membrane of the stomach and that of the œsophagus
Muscular coat of the stomach
Tunica muscularis ventriculi
Pyloric sphincter
M. sphincter pylori
Pyloric orifice
Pylorus
Mucous membrane of the stomach
Tunica mucosa ventriculi
Mucous membrane of the duodenum
Tunica mucosa duodeni
Ridge of the pyloric ring[4]
Valvula pylori
Rugæ of the mucous membrane
Plicæ mucosæ
Muscular coat of the stomach
Tunica muscularis ventriculi
Areolar or submucous coat of the stomach
Tela submucosa ventriculi
1/3

[4] See Appendix, note 8.

FIG. 712.—ANTERIOR HALF OF THE STOMACH, WHICH HAS BEEN DIVIDED IN TWO BY INCISIONS ALONG THE GREAT AND SMALL CURVATURES; SEEN FROM THE INSIDE. TRANSITION OF THE MUCOUS MEMBRANE OF THE ŒSOPHAGUS INTO THAT OF THE CARDIA. PYLORUS, OR PYLORIC ORIFICE. PLICÆ MUCOSÆ VENTRICULI, RUGÆ OF THE MUCOUS MEMBRANE OF THE STOMACH.

Tubus digestorius—Alimentary canal.

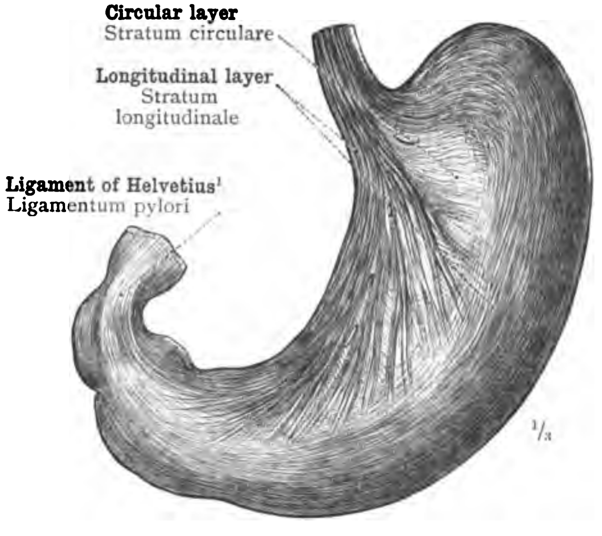


FIG. 713.—SUPERFICIAL LAYER OF THE MUSCULAR COAT OF THE STOMACH: LONGITUDINAL LAYER.

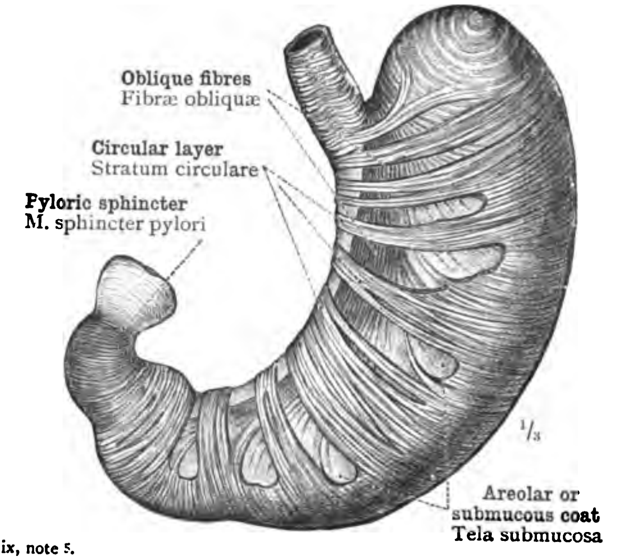


FIG. 714.—MIDDLE AND DEEP LAYERS OF THE MUSCULAR COAT OF THE STOMACH: CIRCULAR LAYER, AND OBLIQUE FIBRES.

Strips of the circular layer have been removed, in order to display the oblique fibres beneath.

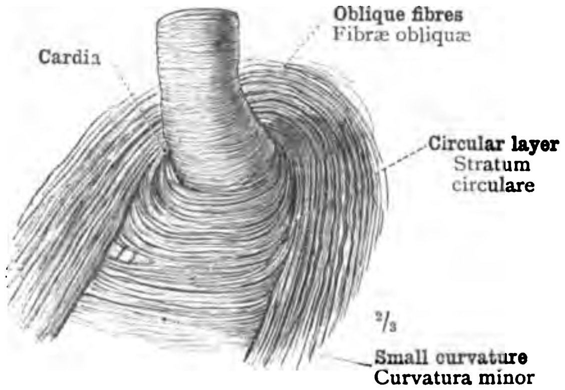


FIG. 715.—MUSCULAR COAT AT THE CARDIA, SEEN FROM WITHIN, THE MUCOUS MEMBRANE HAVING BEEN REMOVED.

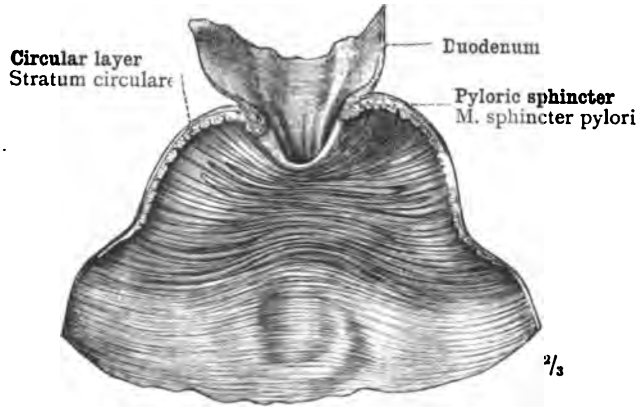


FIG. 716.—MUSCULAR COAT IN THE PYLORIC REGION, LAID BARE FROM WITHIN.

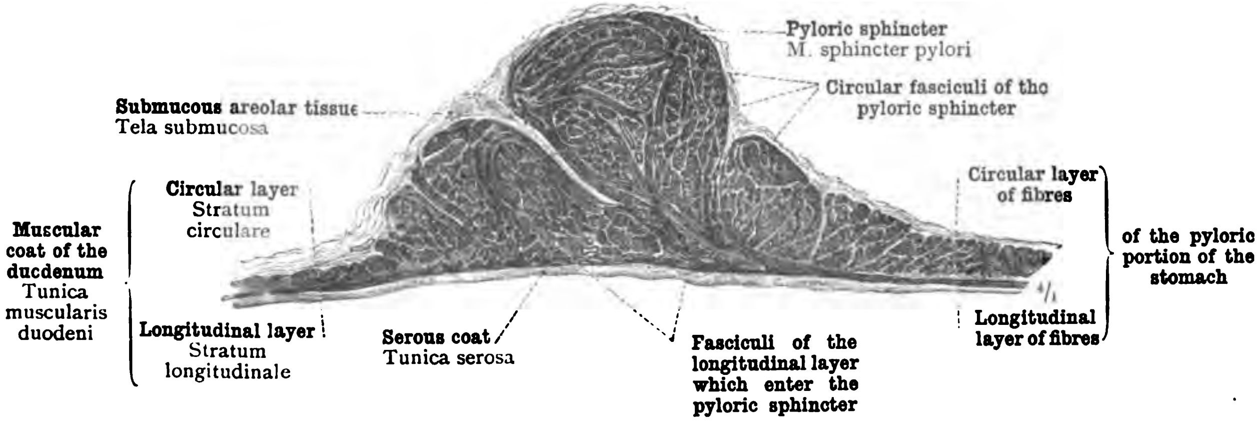

Pyloric sphincter
M. sphincter pylori
Circular fasciculi of the pyloric sphincter
Submucous areolar tissue
Tela submucosa
Circular layer
Stratum circulare
Muscular coat of the duodenum
Tunica muscularis duodeni
Longitudinal layer
Stratum longitudinale
Serous coat
Tunica serosa
Fasciculi of the longitudinal layer which enter the pyloric sphincter
Circular layer of fibres
of the pyloric portion of the stomach
Longitudinal layer of fibres
4/1

FIG. 717.—M. SPHINCTER PYLORI, THE PYLORIC SPHINCTER, IN LONGITUDINAL SECTION.

Tubus digestorius—Alimentary canal.

---

[1] See Appendix, note 5.

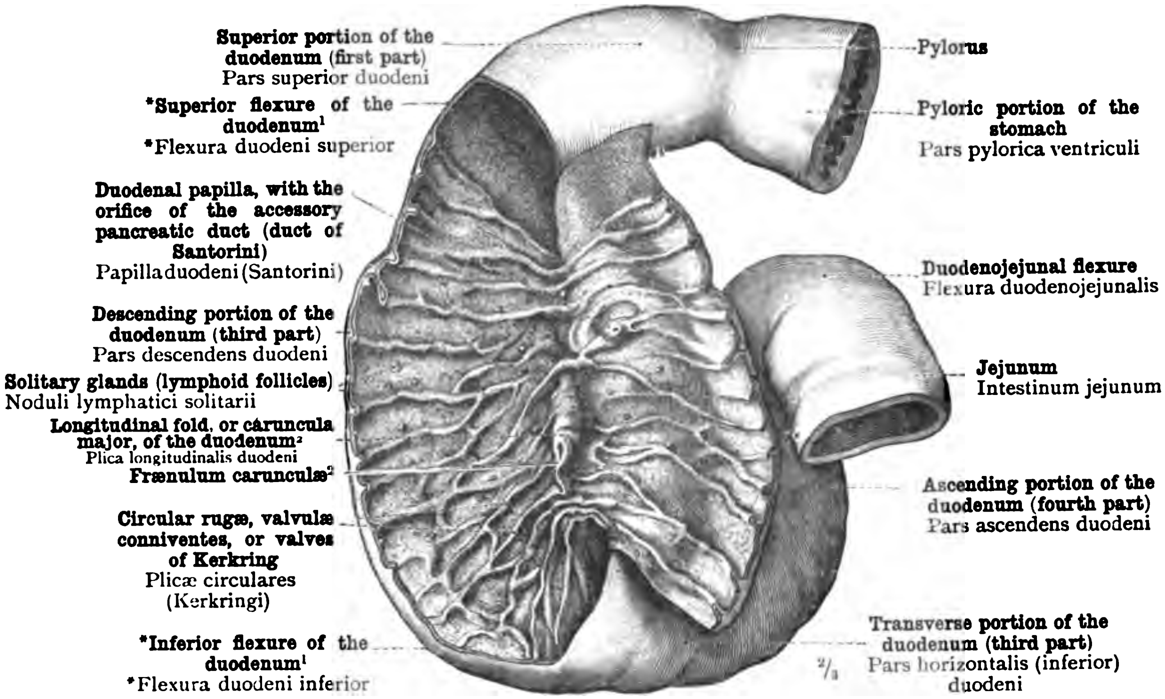

Superior portion of the duodenum (first part)
Pars superior duodeni
*Superior flexure of the duodenum[1]
*Flexura duodeni superior
Duodenal papilla, with the orifice of the accessory pancreatic duct (duct of Santorini)
Papilla duodeni (Santorini)
Descending portion of the duodenum (third part)
Pars descendens duodeni
Solitary glands (lymphoid follicles)
Noduli lymphatici solitarii
Longitudinal fold, or caruncula major, of the duodenum[2]
Plica longitudinalis duodeni
Frænulum carunculæ[2]
Circular rugæ, valvulæ conniventes, or valves of Kerkring
Plicæ circulares (Kerkringi)
*Inferior flexure of the duodenum[1]
*Flexura duodeni inferior
Pylorus
Pyloric portion of the stomach
Pars pylorica ventriculi
Duodenojejunal flexure
Flexura duodenojejunalis
Jejunum
Intestinum jejunum
Ascending portion of the duodenum (fourth part)
Pars ascendens duodeni
Transverse portion of the duodenum (third part)
Pars horizontalis (inferior) duodeni
2/3

FIG. 718.—DUODENUM, SEEN FROM BEFORE. THE DESCENDING PORTION HAS BEEN OPENED, AND THE ANTERIOR WALL TURNED TO THE LEFT. PLICA LONGITUDINALIS DUODENI, THE LONGITUDINAL FOLD, OR CARUNCULA MAJOR, OF THE DUODENUM, AT THE LOWER END OF WHICH IS THE ORIFICE OF THE DUODENAL DIVERTICULUM, DIVERTICULUM DUODENALE (VATERI).[2] PAPILLA DUODENI, THE DUODENAL PAPILLA, WITH THE ORIFICE OF THE ACCESSORY PANCREATIC DUCT, OR DUCT OF SANTORINI.

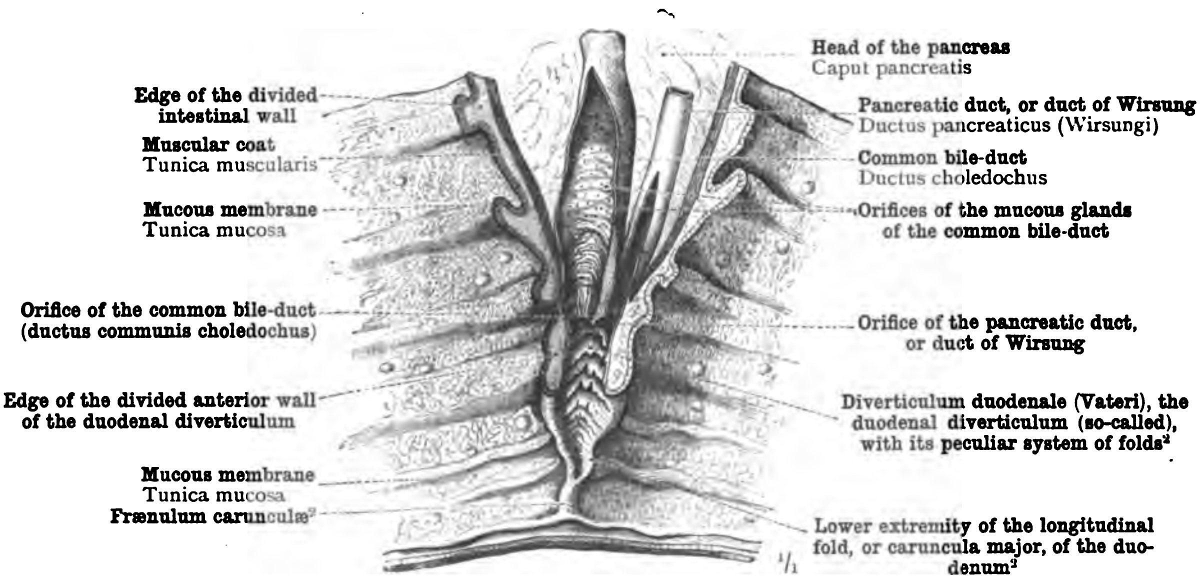

Edge of the divided intestinal wall
Muscular coat
Tunica muscularis
Mucous membrane
Tunica mucosa
Orifice of the common bile-duct (ductus communis choledochus)
Edge of the divided anterior wall of the duodenal diverticulum
Mucous membrane
Tunica mucosa
Frænulum carunculæ[2]
Head of the pancreas
Caput pancreatis
Pancreatic duct, or duct of Wirsung
Ductus pancreaticus (Wirsungi)
Common bile-duct
Ductus choledochus
Orifices of the mucous glands of the common bile-duct
Orifice of the pancreatic duct, or duct of Wirsung
Diverticulum duodenale (Vateri), the duodenal diverticulum (so-called), with its peculiar system of folds[2]
Lower extremity of the longitudinal fold, or caruncula major, of the duodenum[2]
1/1

FIG. 719.—THE DUODENUM HAVING BEEN EXCISED, A LONGITUDINAL INCISION HAS BEEN MADE INTO THE SAC-LIKE DILATATION, DIVERTICULUM DUODENALE (VATERI),[2] TO SHOW THE IMBRICATED TRANSVERSE FOLDS[3] IN ITS INTERIOR. LONGITUDINAL INCISIONS HAVE ALSO BEEN MADE INTO THE LOWER EXTREMITIES OF THE COMMON BILE-DUCT AND THE PANCREATIC DUCT, OR DUCT OF WIRSUNG, WHICH OPEN INTO THE DUODENAL DIVERTICULUM.

[1] See Appendix, note 6. [2] See Appendix, note 9. [3] See Appendix, note 10.

Tubus digestorius—Alimentary canal.

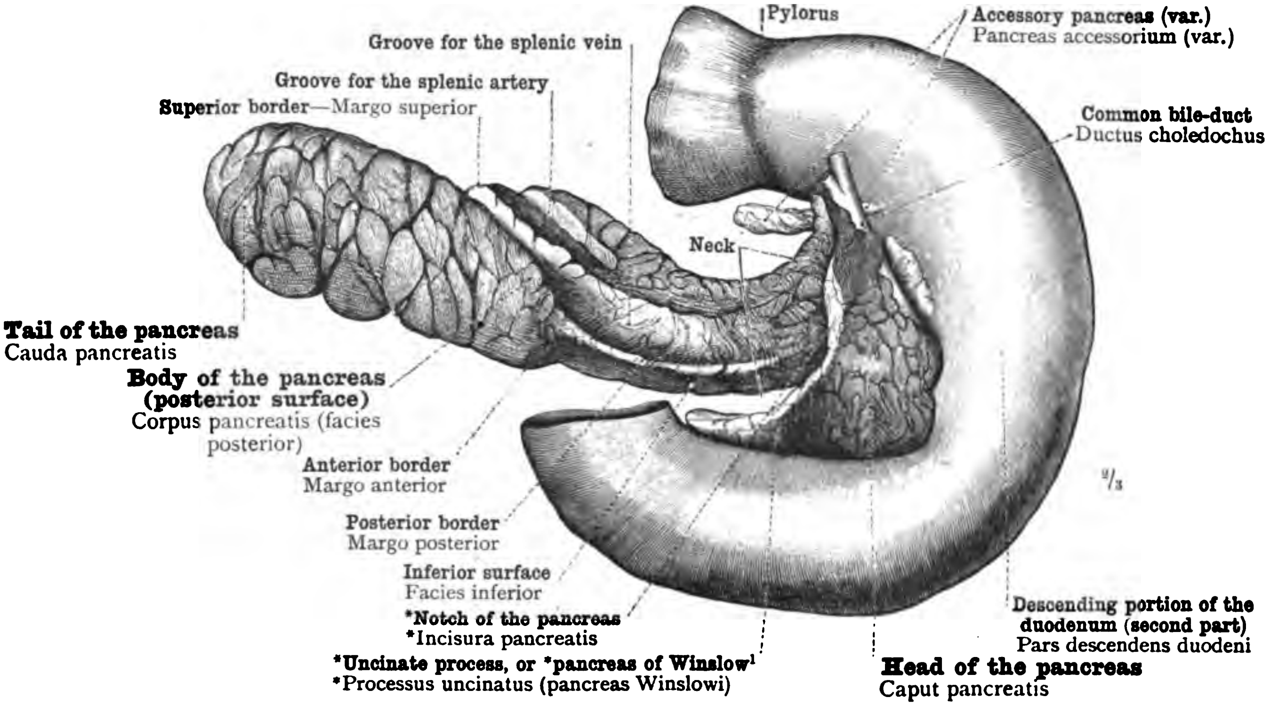

Pylorus
Accessory pancreas (var.)
Pancreas accessorium (var.)
Groove for the splenic vein
Groove for the splenic artery
Superior border—Margo superior
Common bile-duct
Ductus choledochus
Neck
Tail of the pancreas
Cauda pancreatis
Body of the pancreas (posterior surface)
Corpus pancreatis (facies posterior)
Anterior border
Margo anterior
Posterior border
Margo posterior
Inferior surface
Facies inferior
*Notch of the pancreas
*Incisura pancreatis
*Uncinate process, or *pancreas of Winslow¹
*Processus uncinatus (pancreas Winslowi)
2/3
Descending portion of the duodenum (second part)
Pars descendens duodeni
Head of the pancreas
Caput pancreatis

FIG. 720.—THE PANCREAS; ITS RELATIONS TO THE DUODENUM AND TO THE COMMON BILE-DUCT. ACCESSORY PANCREAS. SEEN FROM BEHIND.

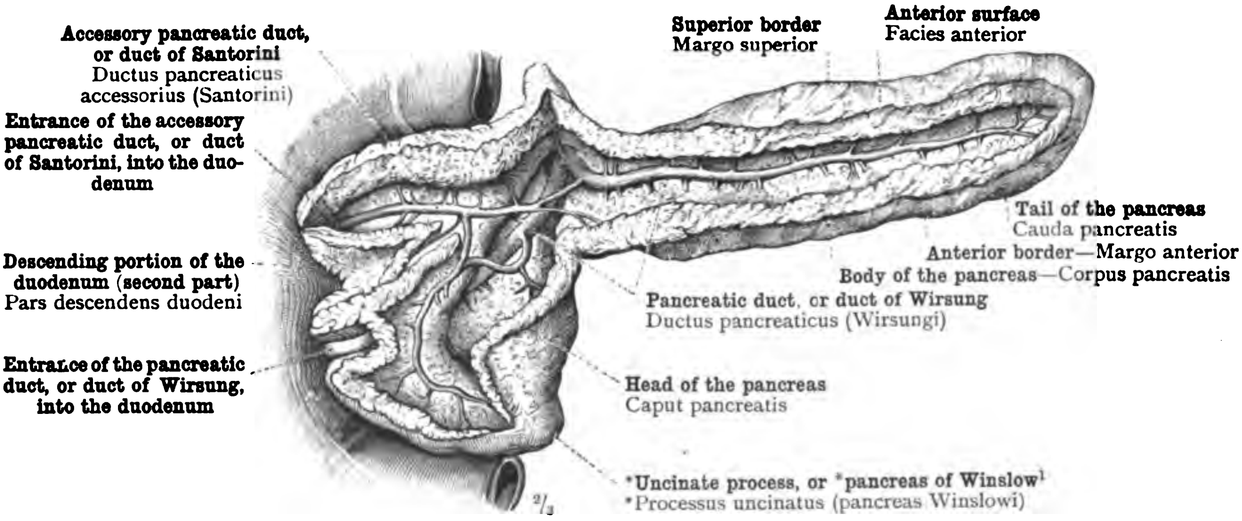

Accessory pancreatic duct, or duct of Santorini
Ductus pancreaticus accessorius (Santorini)
Entrance of the accessory pancreatic duct, or duct of Santorini, into the duodenum
Descending portion of the duodenum (second part)
Pars descendens duodeni
Entrance of the pancreatic duct, or duct of Wirsung, into the duodenum
Superior border
Margo superior
Anterior surface
Facies anterior
Tail of the pancreas
Cauda pancreatis
Anterior border—Margo anterior
Body of the pancreas—Corpus pancreatis
Pancreatic duct, or duct of Wirsung
Ductus pancreaticus (Wirsungi)
Head of the pancreas
Caput pancreatis
*Uncinate process, or *pancreas of Winslow¹
*Processus uncinatus (pancreas Winslowi)
2/3

FIG. 721.—THE PANCREAS, WITH ITS DUCTS DISSECTED OUT, SEEN FROM BEFORE. PANCREATIC DUCT, OR DUCT OF WIRSUNG; ACCESSORY PANCREATIC DUCT, OR DUCT OF SANTORINI.

---

[1] That portion of the head of the pancreas which extends to the left in a hook-like manner behind the mesenteric vessels, called by the author the **uncinate process*, or **pancreas of Winslow*, is sometimes completely separate from the rest of the gland, and is then termed the *lesser pancreas*.—TR.

The Pancreas.

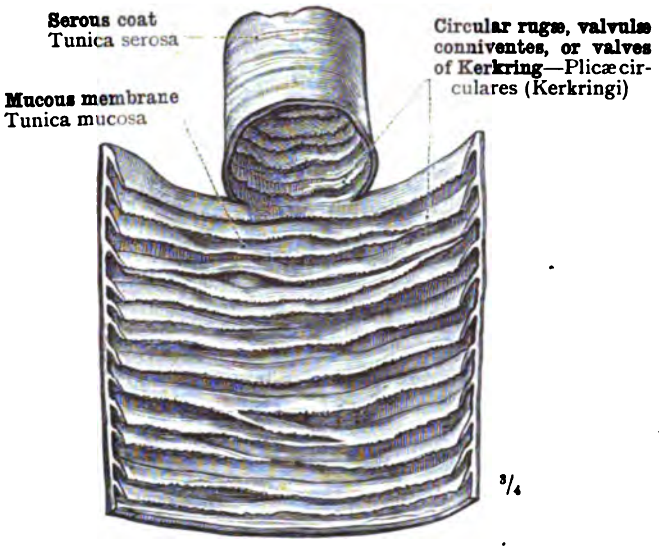

Serous coat
Tunica serosa
Mucous membrane
Tunica mucosa
Circular rugæ, valvulæ conniventes, or valves of Kerkring—Plicæ circulares (Kerkringi)
3/4

FIG. 722.—THE JEJUNUM, IN PART OPENED.

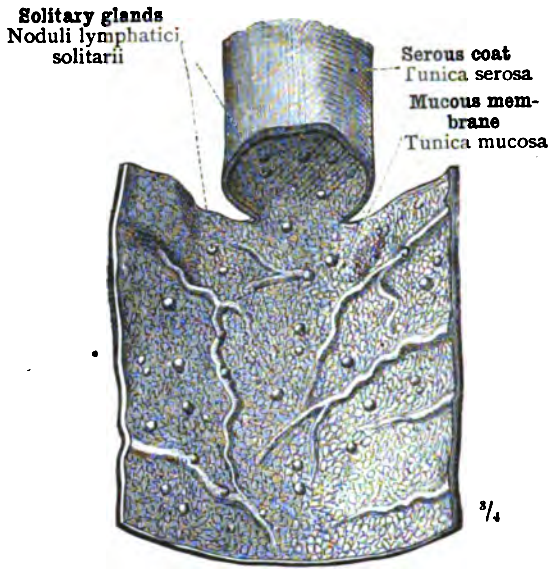
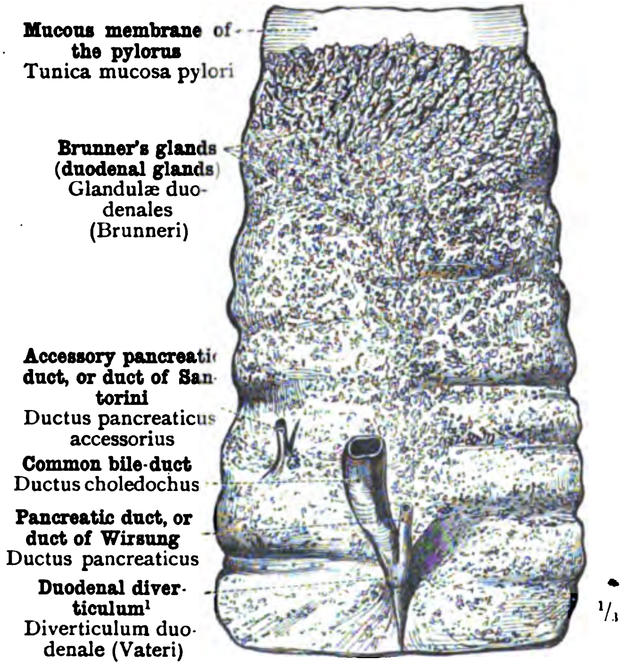


FIG. 723.—THE ILEUM, IN PART OPENED.

INTESTINUM TENUE—THE SMALL INTESTINE.


Mucous membrane of the pylorus
Tunica mucosa pylori
Brunner's glands (duodenal glands)
Glandulæ duodenales (Brunneri)
Accessory pancreatic duct, or duct of Santorini
Ductus pancreaticus accessorius
Common bile-duct
Ductus choledochus
Pancreatic duct, or duct of Wirsung
Ductus pancreaticus
Duodenal diverticulum[1]
Diverticulum duodenale (Vateri)
1/1

[1] See Appendix, note

FIG. 724.—OUTER SURFACE OF THE MUCOUS MEMBRANE OF THE DUODENUM, WITH BRUNNER'S GLANDS (DUODENAL GLANDS), DISPLAYED BY THE REMOVAL OF THE MUSCULAR COAT.

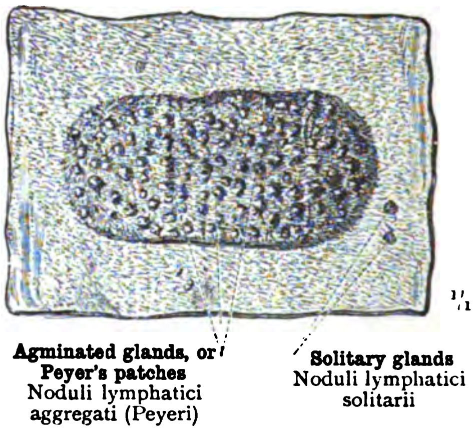

1/1
Agminated glands, or Peyer's patches
Noduli lymphatici aggregati (Peyeri)
Solitary glands
Noduli lymphatici solitarii

FIG. 725.—NODULI LYMPHATICI AGGREGATI, AGMINATED GLANDS, OR PEYER'S PATCHES, FROM THE ILEUM.

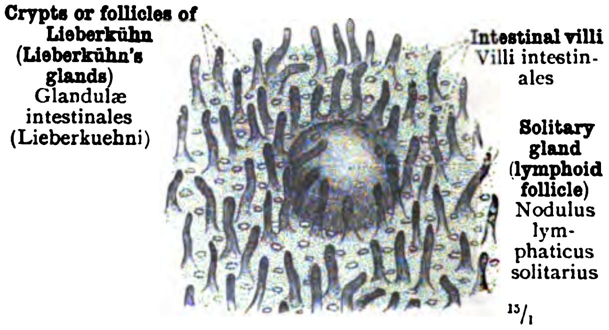

Crypts or follicles of Lieberkühn (Lieberkühn's glands)
Glandulæ intestinales (Lieberkuehni)
Intestinal villi
Villi intestinales
Solitary gland (lymphoid follicle)
Nodulus lymphaticus solitarius
15/1

FIG. 726.—MUCOUS MEMBRANE OF THE ILEUM, WITH A SOLITARY GLAND (LYMPHOID FOLLICLE).

Tubus digestorius—Alimentary canal.

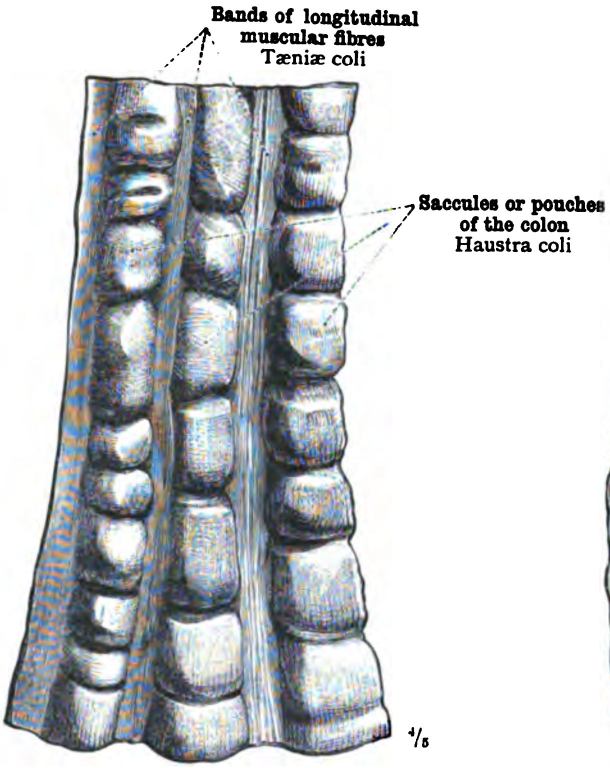

Bands of longitudinal muscular fibres
Tæniæ coli
Saccules or pouches of the colon
Haustra coli
4/5

FIG. 727.—TUNICA MUSCULARIS, THE MUSCULAR COAT, OF THE OPENED LARGE INTESTINE (TRANSVERSE COLON), DISPLAYED FROM THE OUTER SIDE BY THE REMOVAL OF THE SEROUS COAT.

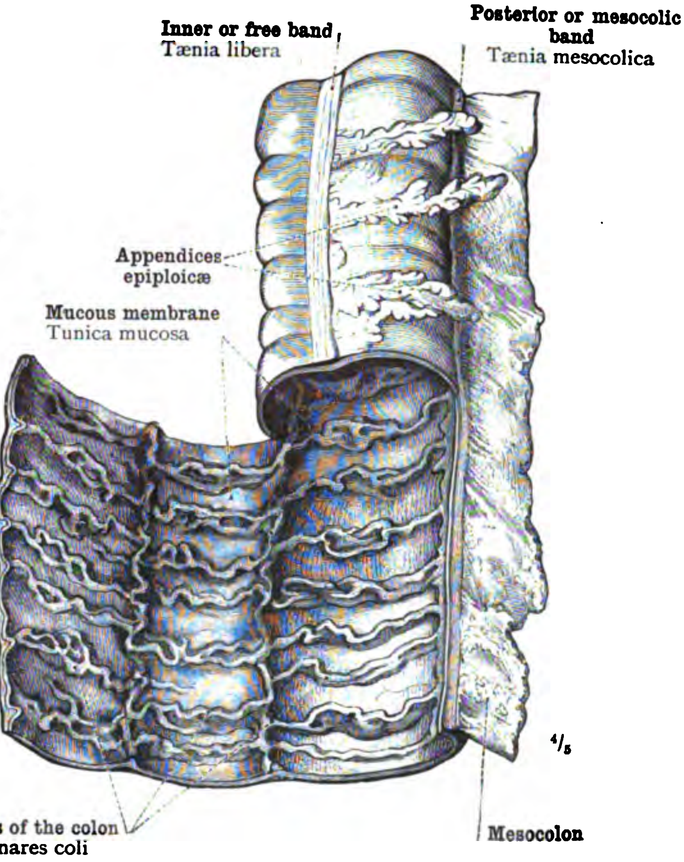


FIG. 728.—INTESTINUM CRASSUM, THE LARGE INTESTINE, IN PART OPENED ALONG THE LINE OF ATTACHMENT OF THE MESENTERY.

The piece of intestine is in the contracted state.

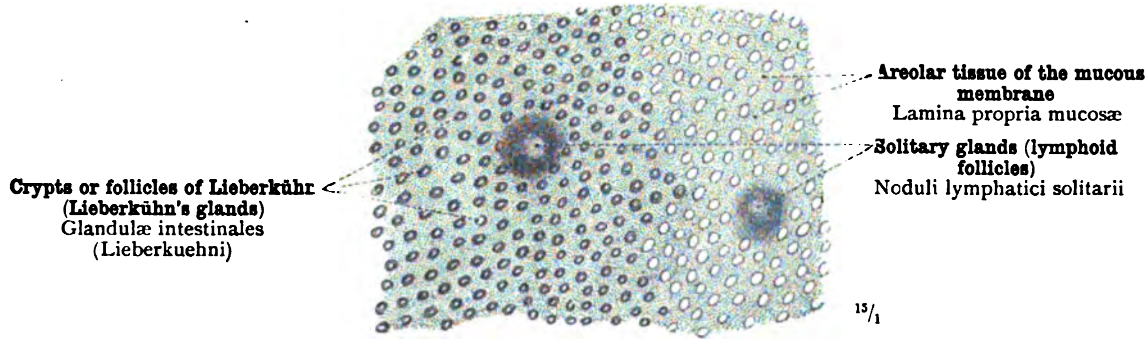

Areolar tissue of the mucous membrane
Lamina propria mucosæ
Solitary glands (lymphoid follicles)
Noduli lymphatici solitarii
Crypts or follicles of Lieberkühn (Lieberkühn's glands)
Glandulæ intestinales (Lieberkuehni)
15/1

FIG. 729.—MUCOUS MEMBRANE OF THE LARGE INTESTINE (TRANSVERSE COLON), MODERATELY MAGNIFIED, SEEN FROM WITHIN.

On the right side of the preparation the gland cells of the crypts or follicles of Lieberkühn (glandulæ intestinales, Lieberkühn's glands) have been removed by gentle friction.

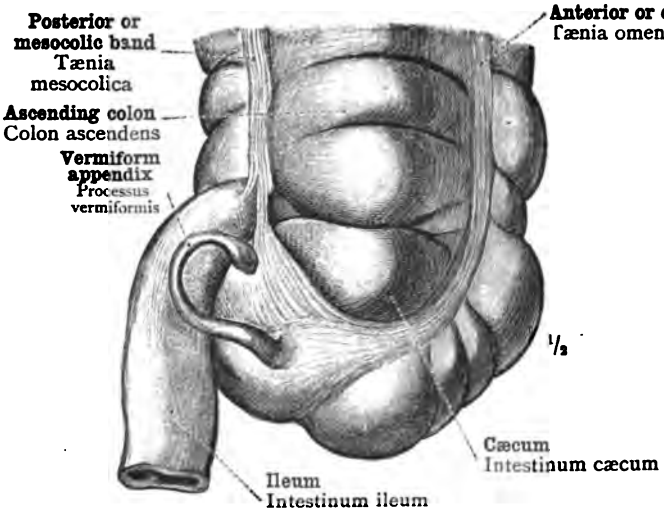


FIG. 730.—INTESTINUM CÆCUM, THE CÆCUM, IN THE DISTENDED STATE, SEEN FROM BEHIND, THE SEROUS COAT HAVING BEEN REMOVED.

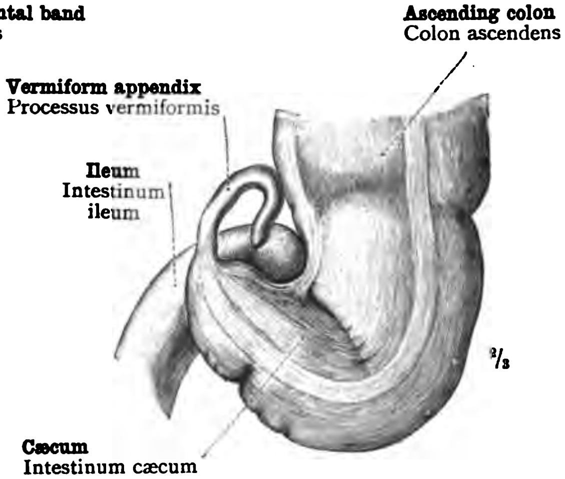


FIG. 731.—INTESTINUM CÆCUM, THE CÆCUM, OF AN ADULT MALE, IN THE FULLY-CONTRACTED STATE, SEEN FROM BEHIND, THE SEROUS COAT HAVING BEEN REMOVED.

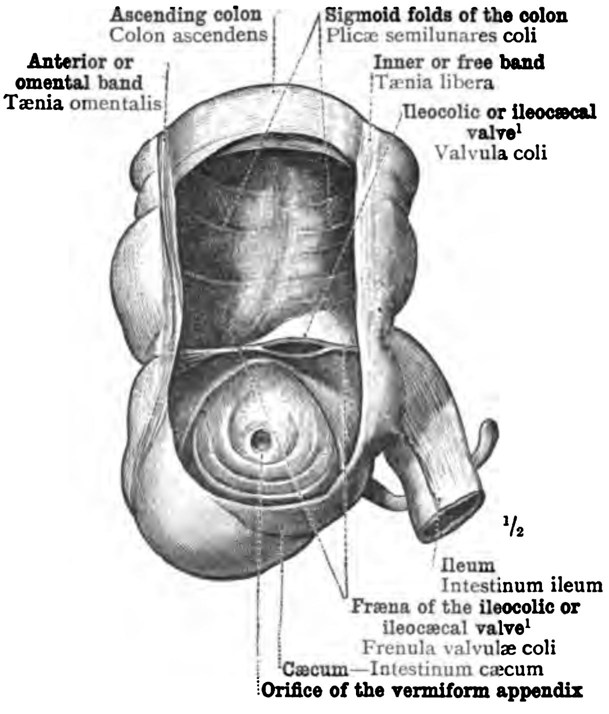


FIG. 732.—THE CÆCUM, DISTENDED AND DRIED, SEEN FROM THE OUTER SIDE.

A portion of the outer wall has been removed, in order to display the ileocolic or ileocæcal valve[1] and the orifice of the vermiform appendix.

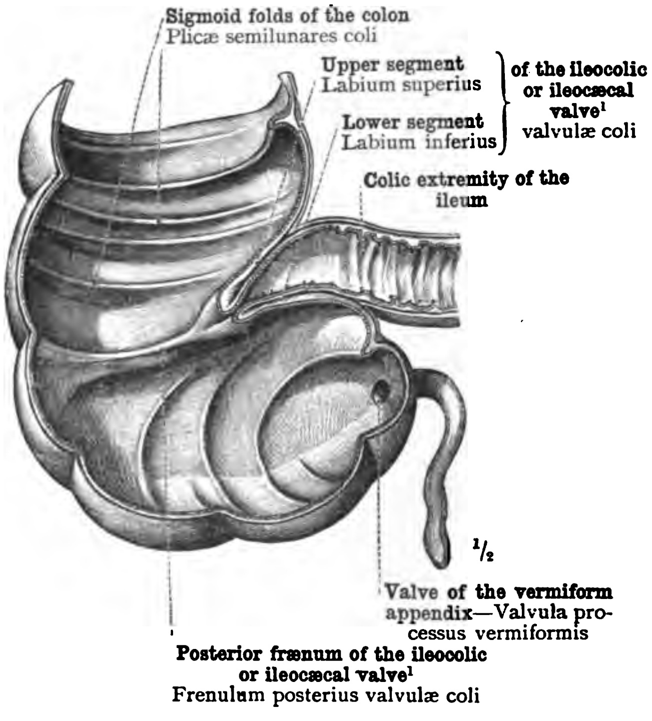

Sigmoid folds of the colon
Plicæ semilunares coli
Upper segment
Labium superius
Lower segment
Labium inferius
of the ileocolic or ileocæcal valve¹
valvulæ coli
Colic extremity of the ileum
1/2
Valve of the vermiform appendix—Valvula processus vermiformis
Posterior frænum of the ileocolic or ileocæcal valve¹
Frenulum posterius valvulæ coli

FIG. 733.—THE CÆCUM, HARDENED IN FORMALIN, AND DIVIDED BY AN INCISION PASSING THROUGH THE ILEOCOLIC OR ILEOCÆCAL ORIFICE. THE ILEOCOLIC OR ILEOCÆCAL VALVE[1] (VALVULA COLI) IS SEEN CLOSED, IN CORONAL SECTION.

---

[1] *Ileocolic or Ileocæcal Valve.*—This is known also as the *valve of Bauhin* and as the *valve of Tulpius*, but was described by Fallopius at an earlier date than by either of these anatomists. Macalister distinguishes the upper or colic lip or segment as the *ileocolic valve*, and the lower or cæcal lip or segment as the *ileocæcal valve.* The *fræna* or *retinacula* of the valve are prominent folds in front and behind the orifice formed by the union of the two segments; they pass round the gut to unite opposite the orifice, forming a shelf which separates the cæcum from the ascending colon. This shelf is sometimes called the *frænum of Morgagni.*—TR.

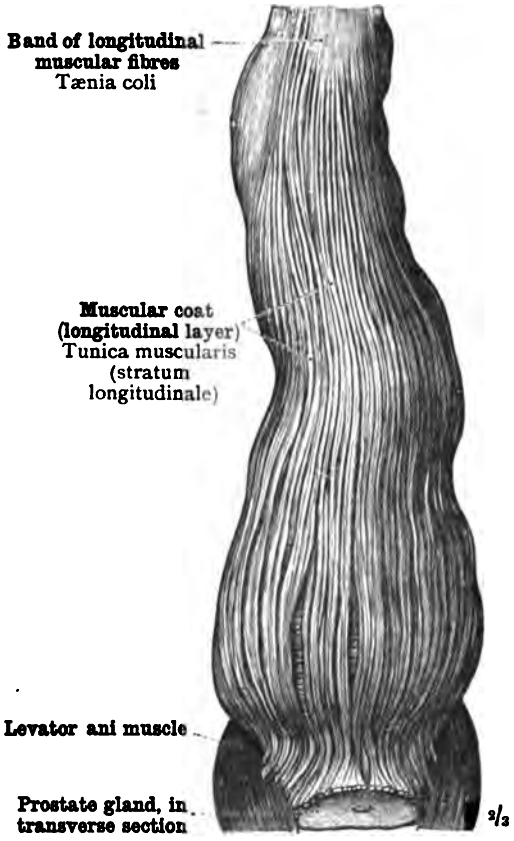

Band of longitudinal muscular fibres
Tænia coli
Muscular coat (longitudinal layer)
Tunica muscularis (stratum longitudinale)
Levator ani muscle
Prostate gland, in transverse section
2/3

FIG. 734.—INTESTINUM RECTUM, THE RECTUM, THE LONGITUDINAL LAYER OF MUSCULAR FIBRES HAVING BEEN EXPOSED. SEEN FROM BEFORE.

Some of the longitudinal fibres are seen to pass on to the surface of the prostate gland, and others between the fasciculi of the levator ani muscle.

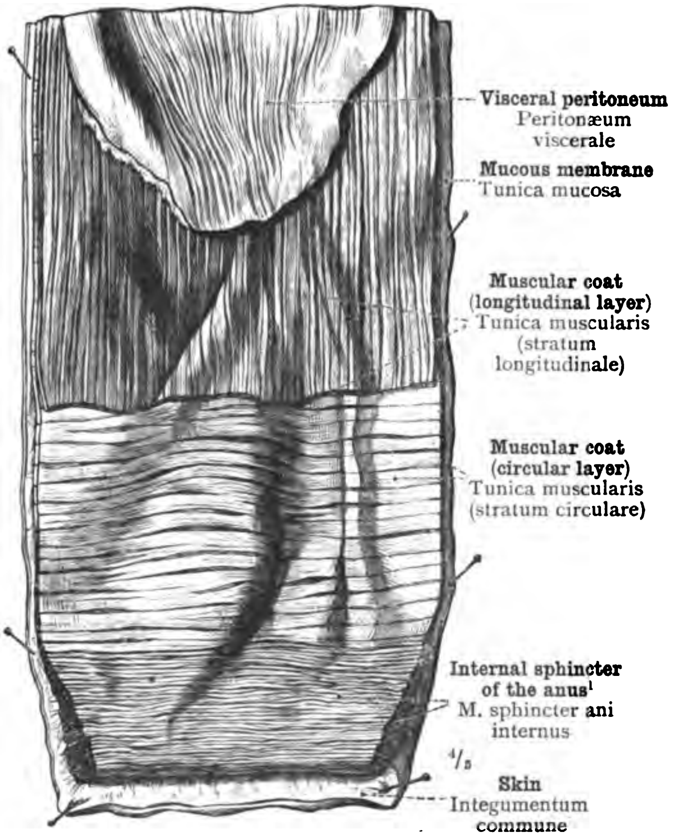

Visceral peritoneum
Peritonæum viscerale
Mucous membrane
Tunica mucosa
Muscular coat (longitudinal layer)
Tunica muscularis (stratum longitudinale)
Muscular coat (circular layer)
Tunica muscularis (stratum circulare)
Internal sphincter of the anus[1]
M. sphincter ani internus
4/5
Skin
Integumentum commune

FIG. 735.—OUTER SURFACE OF THE RECTUM, WHICH HAS BEEN ISOLATED AND OPENED FROM BEHIND.

In the lower half the longitudinal layer of the muscular coat has been removed, in order to display the circular layer and the continuity of this latter with the internal or circular sphincter of the anus.

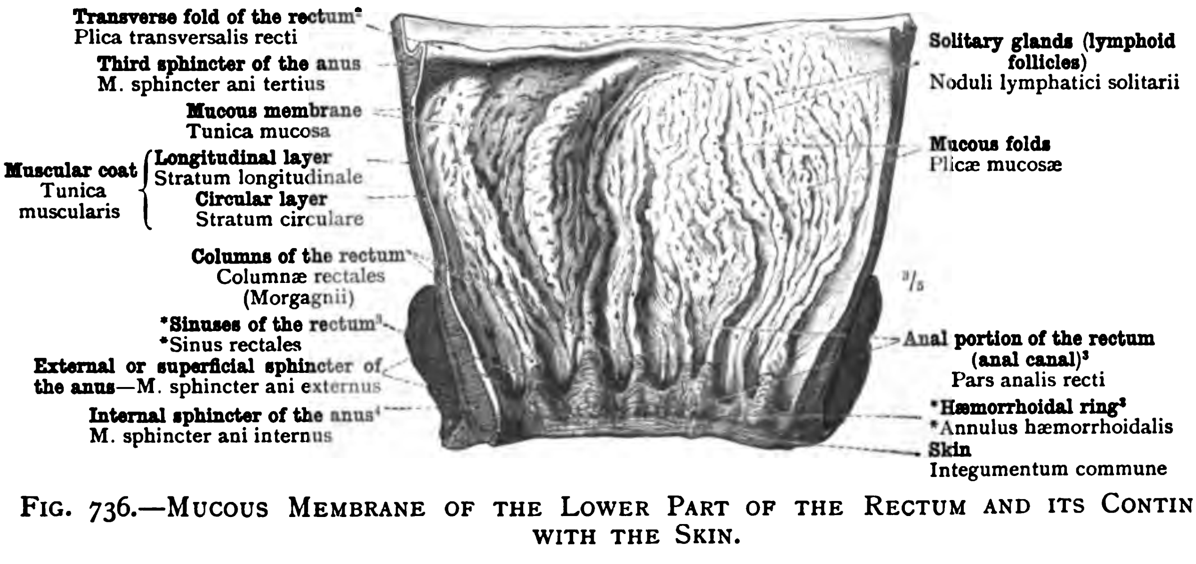

Transverse fold of the rectum[2]
Plica transversalis recti
Third sphincter of the anus
M. sphincter ani tertius
Mucous membrane
Tunica mucosa
Muscular coat
Tunica muscularis
Longitudinal layer
Stratum longitudinale
Circular layer
Stratum circulare
Columns of the rectum[3]
Columnæ rectales (Morgagnii)
*Sinuses of the rectum[3]
*Sinus rectales
External or superficial sphincter of the anus—M. sphincter ani externus
Internal sphincter of the anus[4]
M. sphincter ani internus
Solitary glands (lymphoid follicles)
Noduli lymphatici solitarii
Mucous folds
Plicæ mucosæ
3/5
Anal portion of the rectum (anal canal)[3]
Pars analis recti
*Hæmorrhoidal ring[3]
*Annulus hæmorrhoidalis
Skin
Integumentum commune

FIG. 736.—MUCOUS MEMBRANE OF THE LOWER PART OF THE RECTUM AND ITS CONTINUITY WITH THE SKIN.

---

[1] Known also as the *deep* or *circular sphincter of the anus*.

[2] See Appendix, note 11.

[3] See Appendix, note 12.

[4] Known also as the *deep* or *circular sphincter of the anus*.

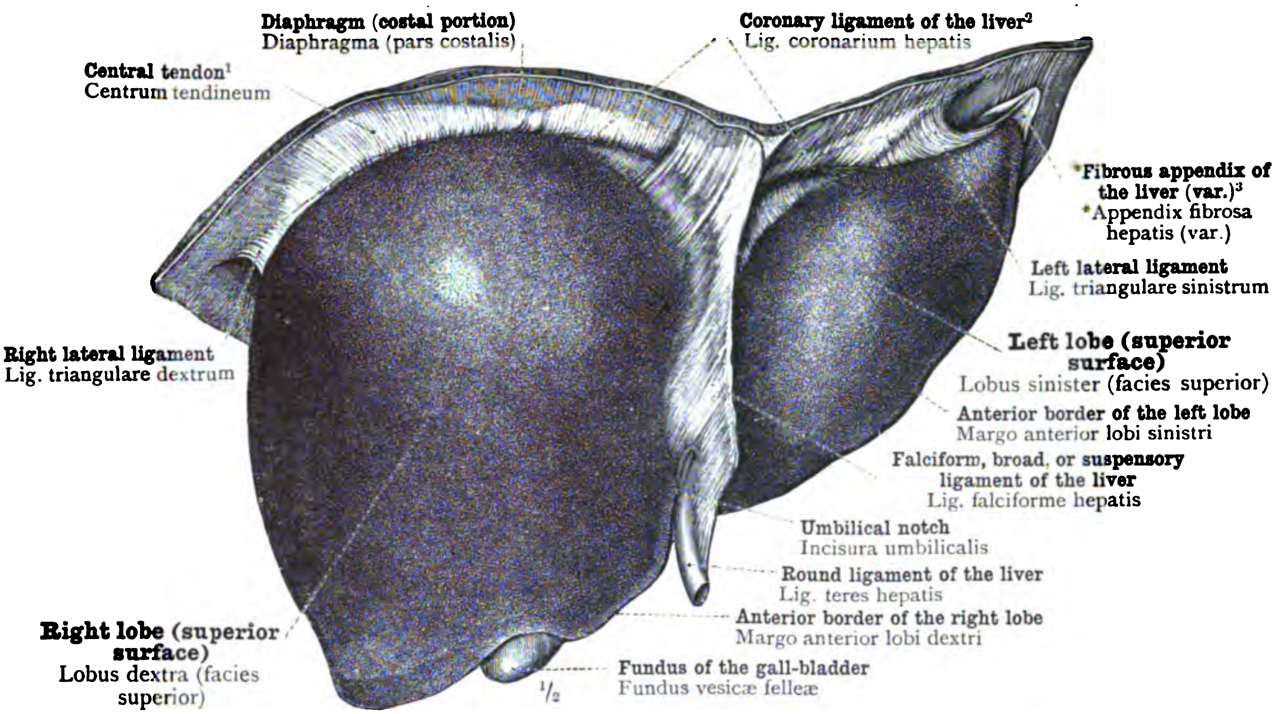

Diaphragm (costal portion)
Diaphragma (pars costalis)
Coronary ligament of the liver[2]
Lig. coronarium hepatis
Central tendon[1]
Centrum tendineum
*Fibrous appendix of the liver (var.)[3]
*Appendix fibrosa hepatis (var.)
Left lateral ligament
Lig. triangulare sinistrum
Right lateral ligament
Lig. triangulare dextrum
Left lobe (superior surface)
Lobus sinister (facies superior)
Anterior border of the left lobe
Margo anterior lobi sinistri
Falciform, broad, or suspensory ligament of the liver
Lig. falciforme hepatis
Umbilical notch
Incisura umbilicalis
Round ligament of the liver
Lig. teres hepatis
Anterior border of the right lobe
Margo anterior lobi dextri
Right lobe (superior surface)
Lobus dextra (facies superior)
Fundus of the gall-bladder
Fundus vesicæ felleæ
1/2

FIG. 737.—SUPERIOR SURFACE OF THE LIVER AND ITS ATTACHMENTS TO THE DIAPHRAGM.

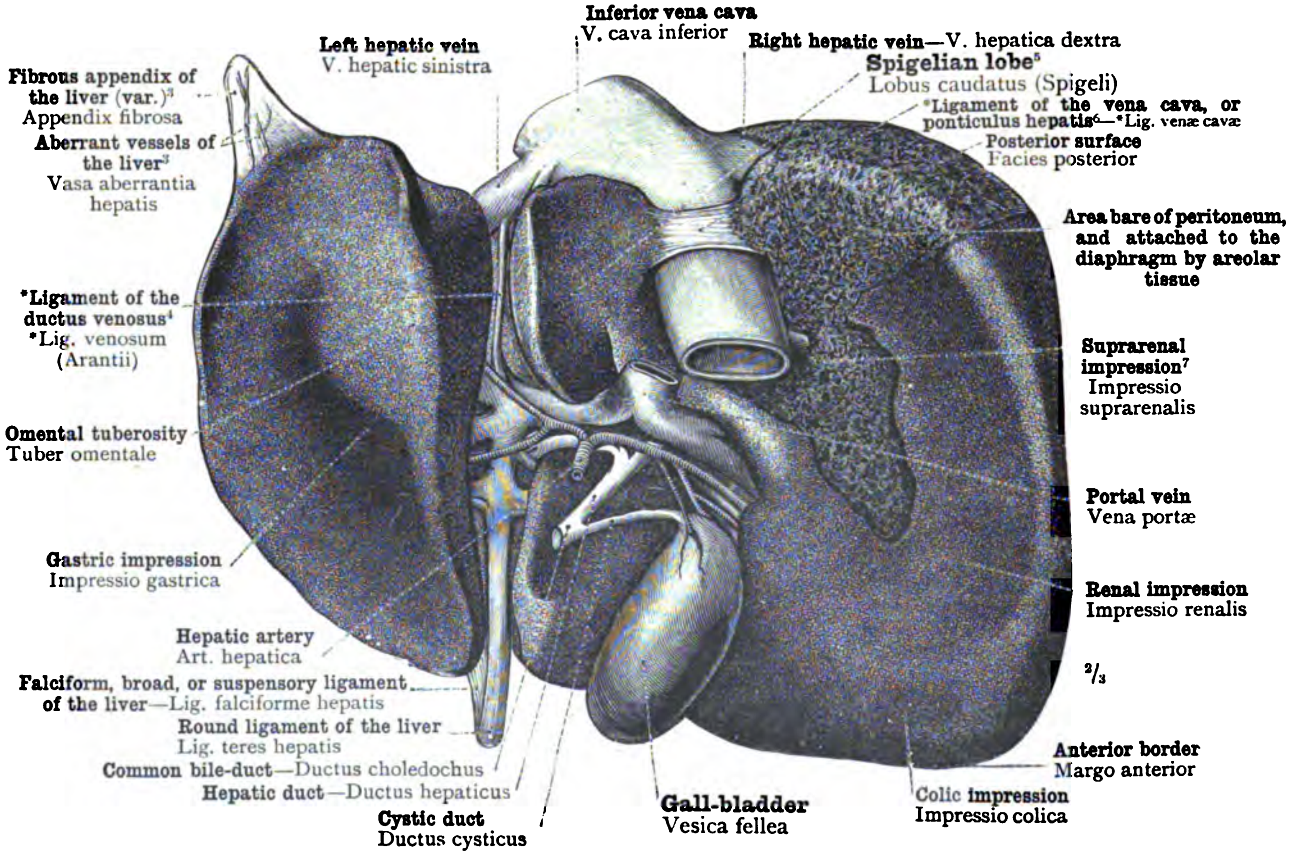


FIG. 738.—INFERIOR SURFACE OF THE LIVER; THE STRUCTURES OCCUPYING THE FISSURES OF THE ORGAN.

---

[1] Called also the *trefoil* or *cordiform tendon* of the diaphragm.
[2] See Appendix, note 13.
[3] See Appendix, note 14.
[4] See Appendix, note 15.
[5] See Appendix, note 16.
[6] See Appendix, note 17.
[7] Or *adrenal impression*.

Hepar—The liver.

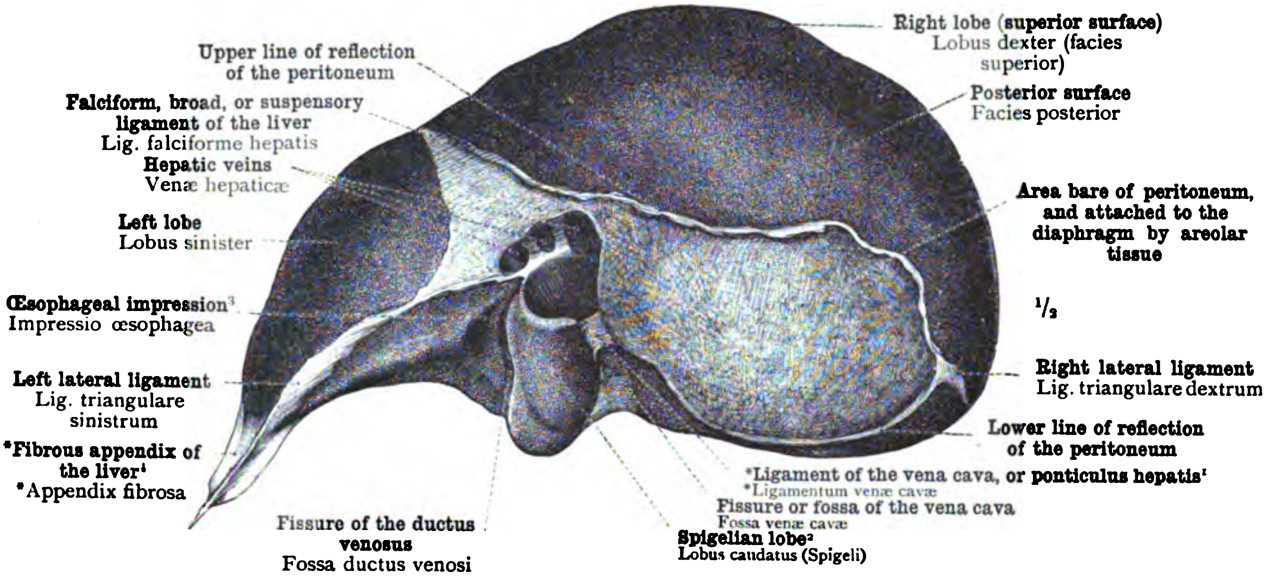

Right lobe (superior surface)
Lobus dexter (facies superior)
Upper line of reflection of the peritoneum
Posterior surface
Facies posterior
Falciform, broad, or suspensory ligament of the liver
Lig. falciforme hepatis
Hepatic veins
Venæ hepaticæ
Left lobe
Lobus sinister
Area bare of peritoneum, and attached to the diaphragm by areolar tissue
Œsophageal impression[3]
Impressio œsophagea
1/3
Left lateral ligament
Lig. triangulare sinistrum
Right lateral ligament
Lig. triangulare dextrum
*Fibrous appendix of the liver[4]
*Appendix fibrosa
Lower line of reflection of the peritoneum
*Ligament of the vena cava, or ponticulus hepatis[1]
*Ligamentum venæ cavæ
Fissure or fossa of the vena cava
Fossa venæ cavæ
Fissure of the ductus venosus
Fossa ductus venosi
Spigelian lobe[2]
Lobus caudatus (Spigeli)

FIG. 739.—POSTERIOR SURFACE OF THE LIVER, WITH THE ORIFICES OF THE HEPATIC VEINS.

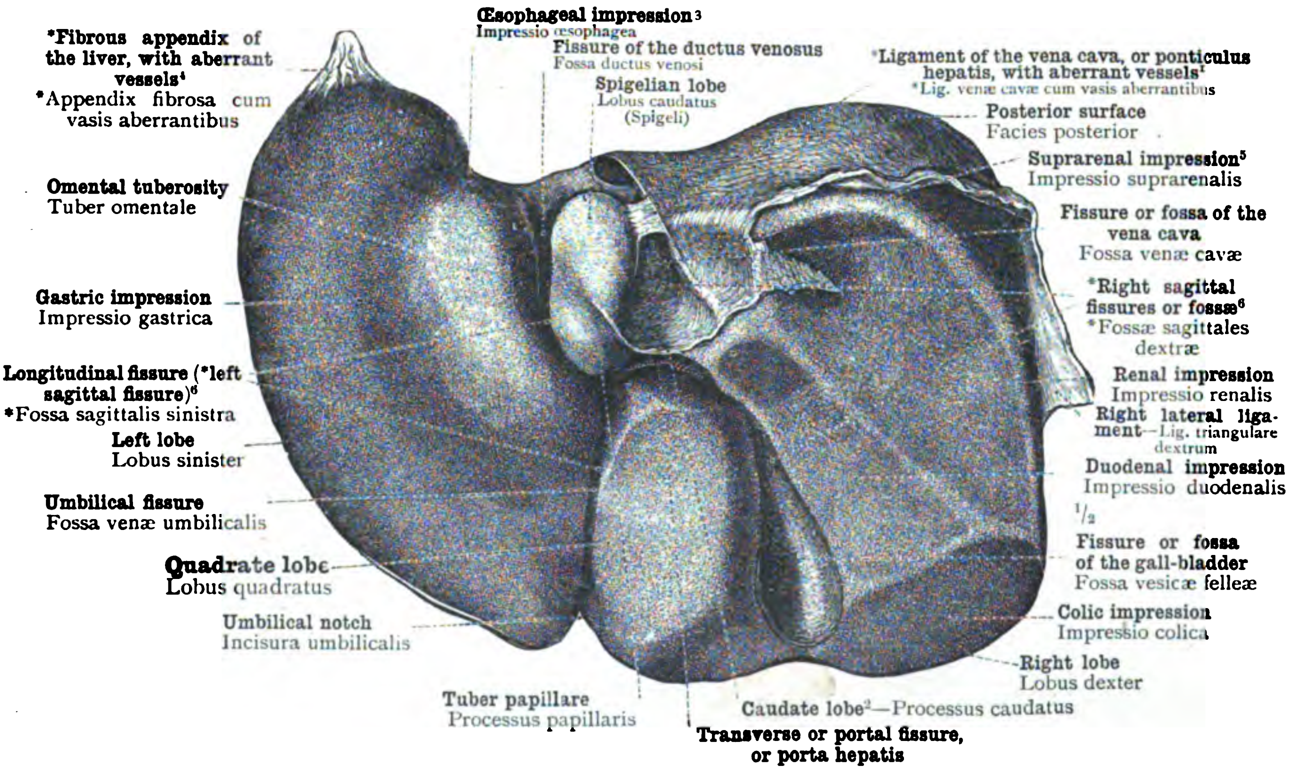


FIG. 740.—INFERIOR SURFACE OF A LIVER WHICH WAS HARDENED *IN SITU* BEFORE THE BODY WAS OPENED, THE STRUCTURES OCCUPYING THE FISSURES OF THE ORGAN HAVING BEEN ENTIRELY REMOVED.

---

[1] See Appendix, note 17.

[2] See Appendix, note 16.

[3] Known also as the *œsophageal groove* or *œsophageal sulcus*.

[4] See Appendix, note 14.

[5] Or *adrenal impression*.

[6] *Sagittal Fissures*.—This name is not used in England. The *umbilical fissure* and the *fissure of the ductus venosus* form the anterior and posterior parts, respectively, of the *longitudinal fissure* of English anatomists, called by the author *fossa sagittalis sinistra*. The *fissure* or *fossa of the gall-bladder* and the *fissure* or *fossa of the vena cava*, being separated from one another by the caudate lobe, do not combine to form a single fissure. These are called by the author *fossæ sagittales dextræ*.—TR.

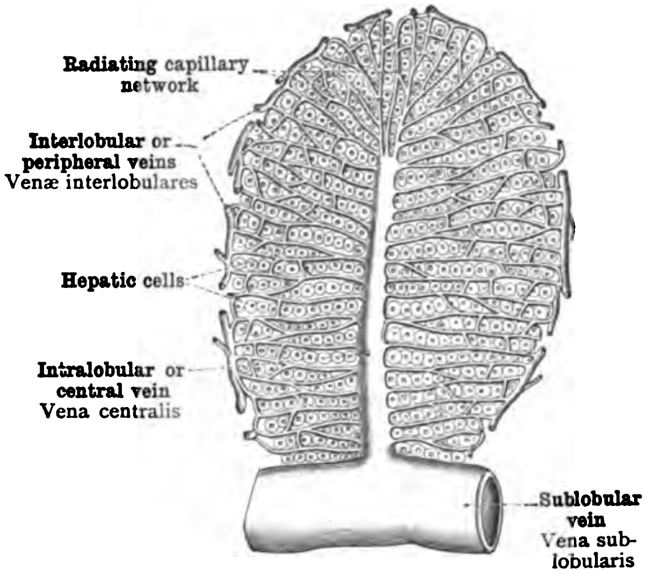

Radiating capillary network
Interlobular or **peripheral veins**
Venæ interlobulares
Hepatic cells
Intralobular or **central vein**
Vena centralis
Sublobular vein
Vena sublobularis

FIG. 741.—DIAGRAMMATIC REPRESENTATION OF A LONGITUDINALLY DIVIDED HEPATIC LOBULE, LOBULUS HEPATICUS. VENA CENTRALIS, INTRALOBULAR OR CENTRAL VEIN; VENÆ INTERLOBULARES, INTERLOBULAR OR PERIPHERAL VEINS; VENA SUBLOBULARIS, SUBLOBULAR VEIN.

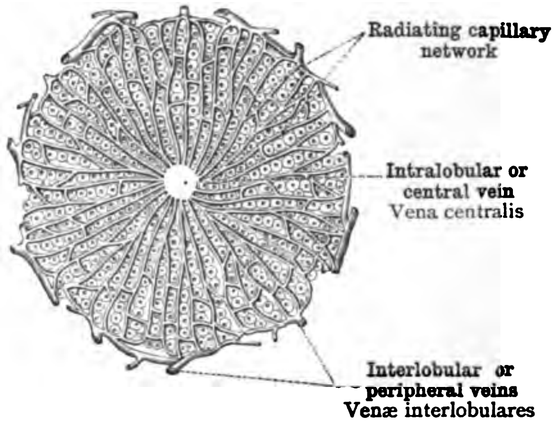

Radiating capillary network
Intralobular or central **vein**
Vena centralis
Interlobular or peripheral veins
Venæ interlobulares

FIG. 742.—DIAGRAMMATIC REPRESENTATION OF A TRANSVERSELY-DIVIDED HEPATIC LOBULE. VENA CENTRALIS, INTRALOBULAR OR CENTRAL VEIN; VENÆ INTERLOBULARES, INTERLOBULAR VEINS.

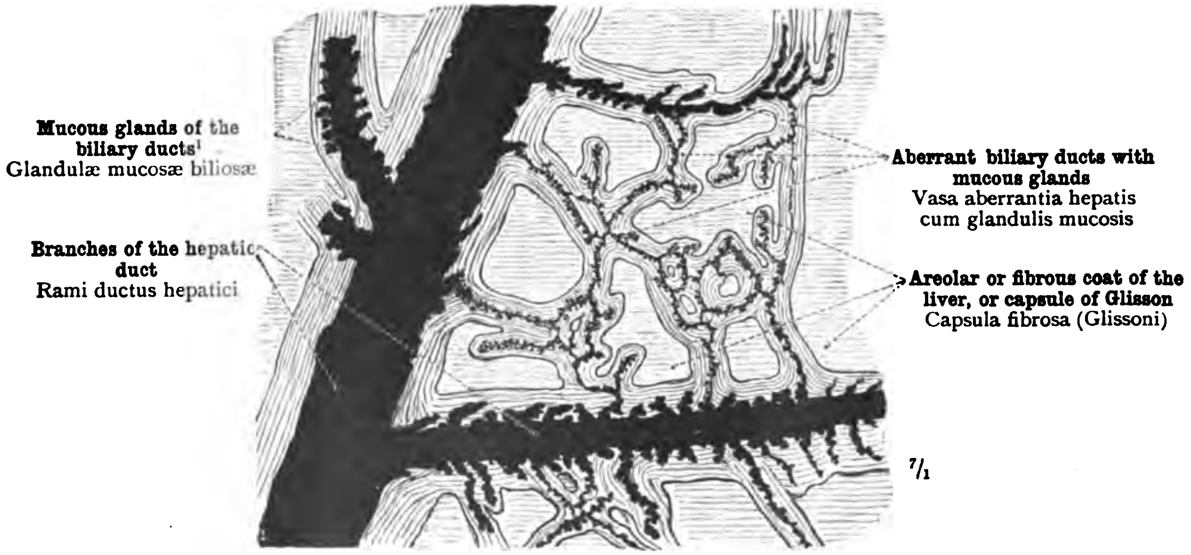

Mucous glands of the **biliary ducts**[1]
Glandulæ mucosæ biliosæ
Branches of the hepatic **duct**
Rami ductus hepatici
Aberrant biliary ducts with mucous glands
Vasa aberrantia hepatis cum glandulis mucosis
Areolar or fibrous coat of the liver, or capsule of Glisson
Capsula fibrosa (Glissoni)
7/1

FIG. 743.—VASA ABERRANTIA HEPATIS, ABERRANT BILIARY DUCTS, WITH MUCOUS GLANDS (GLANDULÆ MUCOSÆ BILIOSÆ), FROM ONE OF THE PORTAL CANALS, INJECTED WITH PRUSSIAN BLUE.

Hepar—The liver.

---

[1] *Mucous Glands of the Biliary Ducts.*—Quain writes ("Anatomy," tenth ed., vol. iii., part iv., p. 135): "In the portal canals . . . the ducts present numerous openings on the inner surface which are scattered irregularly in the larger ducts, but in the subdivisions are arranged in two longitudinal rows, one at each side of the vessel. These openings were formerly supposed to be the orifices of mucous glands; but, while the main ducts are studded with true mucous glands of lobulated form and with minute orifices, the openings now referred to belong to saccular and tubular recesses, which are often branched and anastomosing, and may be beset all over with tubular projections (Theile)."—TR.

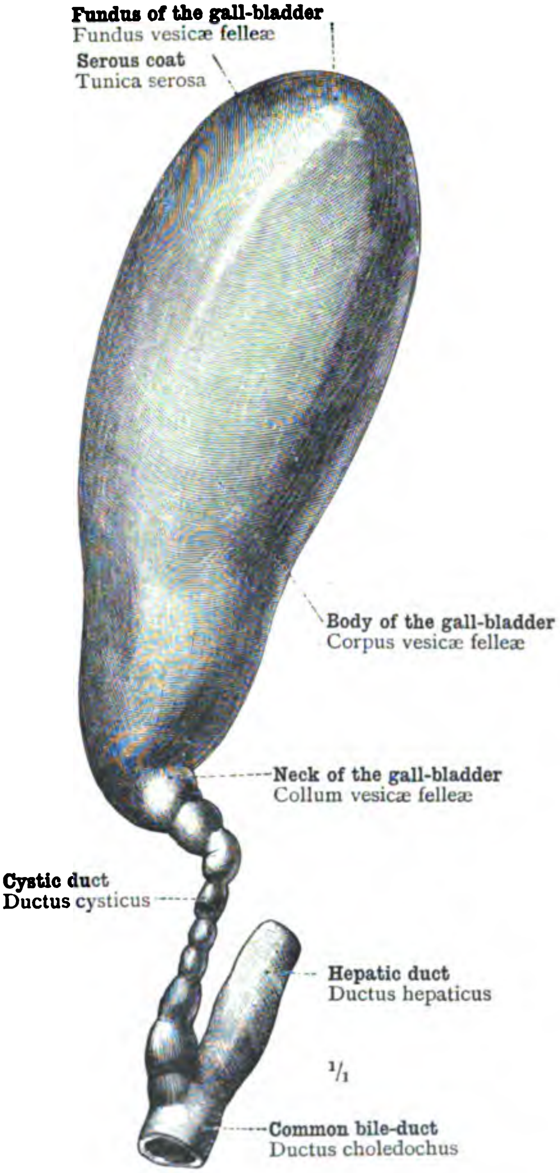


FIG. 744.—VESICA FELLEA, THE GALL-BLADDER, MODERATELY DISTENDED, WITH THE CYSTIC DUCT (DUCTUS CYSTICUS) AND THE JUNCTION OF THE LATTER WITH THE HEPATIC DUCT (DUCTUS HEPATICUS) TO FORM THE COMMON BILE-DUCT (DUCTUS COMMUNIS CHOLEDOCHUS).

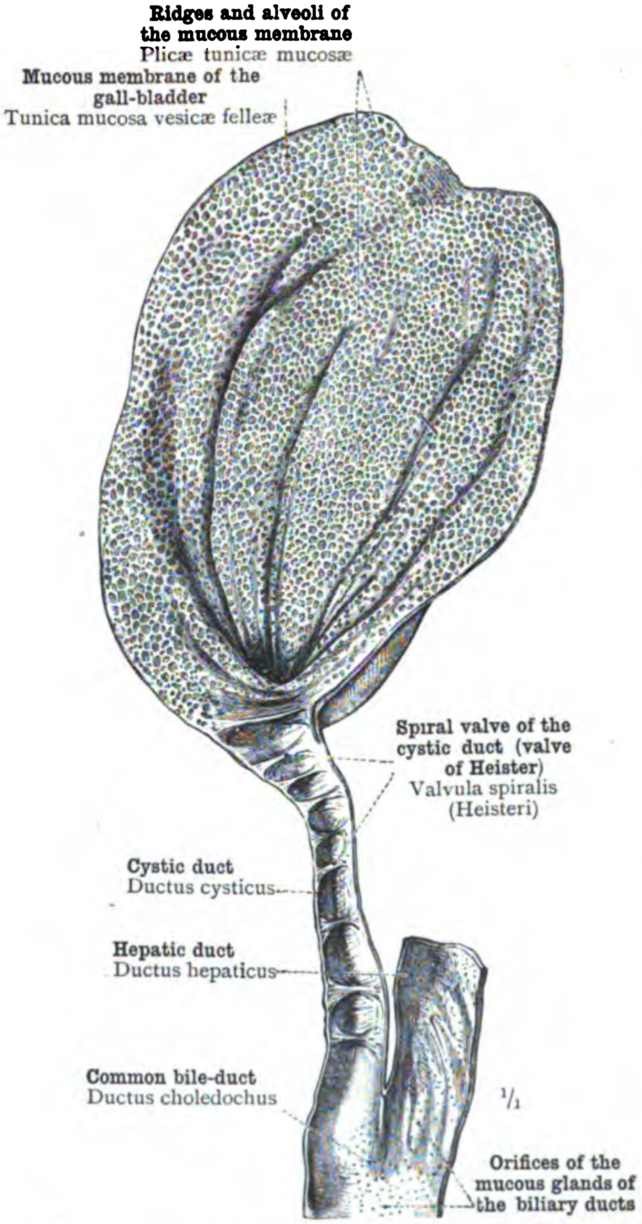

Ridges and alveoli of the mucous membrane
Plicæ tunicæ mucosæ
Mucous membrane of the gall-bladder
Tunica mucosa vesicæ felleæ
Spiral valve of the cystic duct (valve of Heister)
Valvula spiralis (Heisteri)
Cystic duct
Ductus cysticus
Hepatic duct
Ductus hepaticus
Common bile-duct
Ductus choledochus
1/1
Orifices of the mucous glands of the biliary ducts

FIG. 745.—THE GALL-BLADDER AND THE CYSTIC DUCT, OPENED LONGITUDINALLY. VALVULA SPIRALIS (HEISTERI), THE SPIRAL VALVE OF THE CYSTIC DUCT, OR HEISTER'S VALVE.

Hepar—The liver.

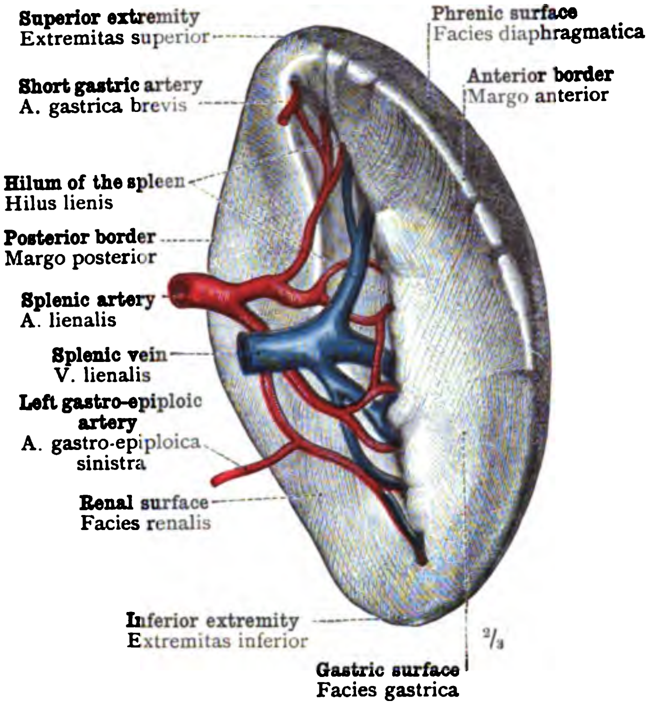


FIG 746.—LIEN, THE SPLEEN, INNER OR GASTRIC ASPECT, WITH THE BRANCHING TERMINATION OF THE SPLENIC ARTERY AND VEIN LAID BARE.[2]

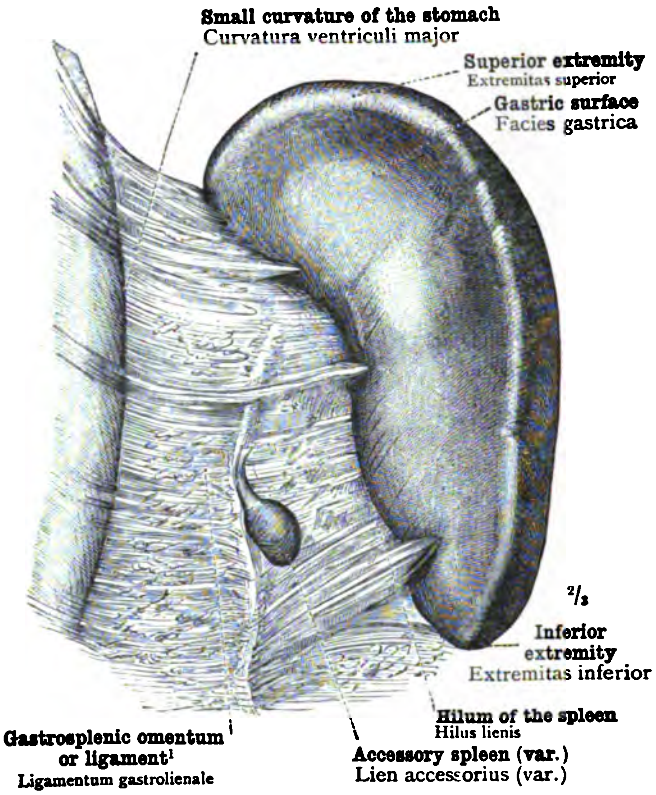


FIG. 747.—THE SPLEEN, WITH THE GASTROSPLENIC OMENTUM LEFT ATTACHED, SEEN FROM BEFORE. LIEN ACCESSORIUS, AN ACCESSORY SPLEEN.

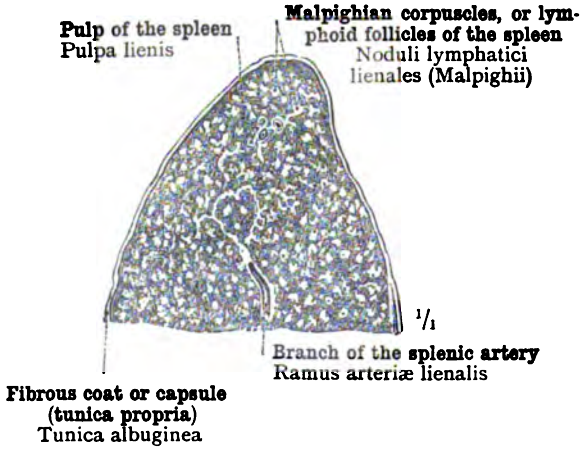

Pulp of the spleen
Pulpa lienis
Malpighian corpuscles, or lymphoid follicles of the spleen
Noduli lymphatici lienales (Malpighii)
1/1
Branch of the splenic artery
Ramus arteriæ lienalis
Fibrous coat or capsule (tunica propria)
Tunica albuginea

FIG. 748.—A PORTION OF THE CUT SURFACE OF THE SPLEEN OF A YOUNG MALE SUICIDE, IN WHICH THE MALPIGHIAN CORPUSCLES OR LYMPHOID FOLLICLES OF THE SPLEEN (NODULI LYMPHATICI LIENALES MALPIGHII) ARE VERY ABUNDANT.

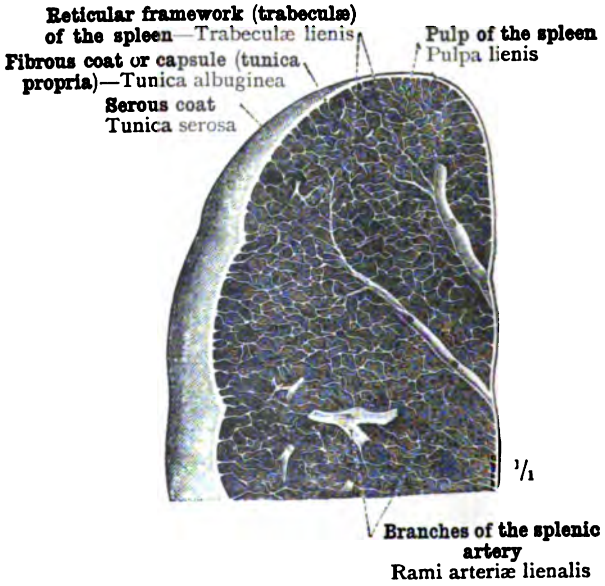

Reticular framework (trabeculæ) of the spleen—Trabeculæ lienis
Fibrous coat or capsule (tunica propria)—Tunica albuginea
Serous coat
Tunica serosa
Pulp of the spleen
Pulpa lienis
1/1
Branches of the splenic artery
Rami arteriæ lienalis

FIG. 749.—A PORTION OF THE CUT SURFACE OF A SPLEEN FROM WHICH THE PULP HAS BEEN PARTIALLY REMOVED BY LONG-CONTINUED AFFUSION WITH WATER, SO THAT THE FIBROUS FRAMEWORK OF THE ORGAN HAS BEEN ISOLATED.

---

[1] See Appendix, note 18.

[2] See Appendix, note 19.

Lien—The spleen.

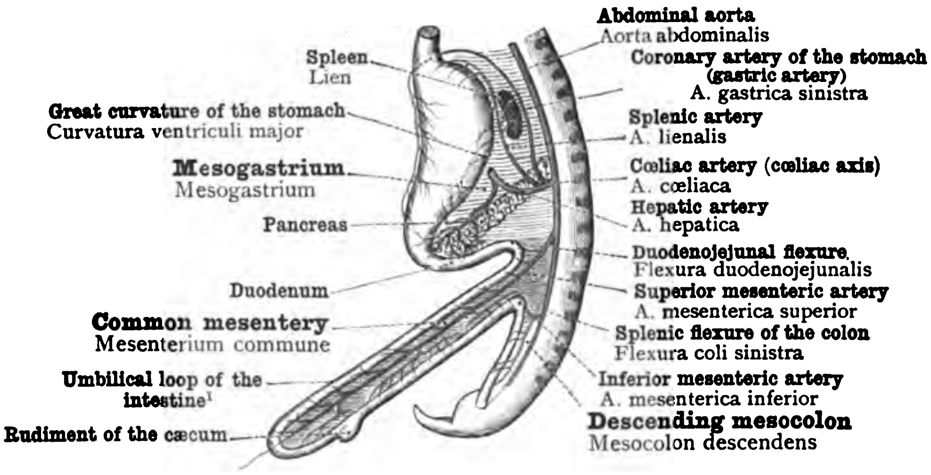


FIG. 750.—CONDITION OF THE HUMAN ALIMENTARY CANAL AND MESENTERY IN THE SIXTH WEEK OF INTRA-UTERINE LIFE. DIAGRAMMATIC.

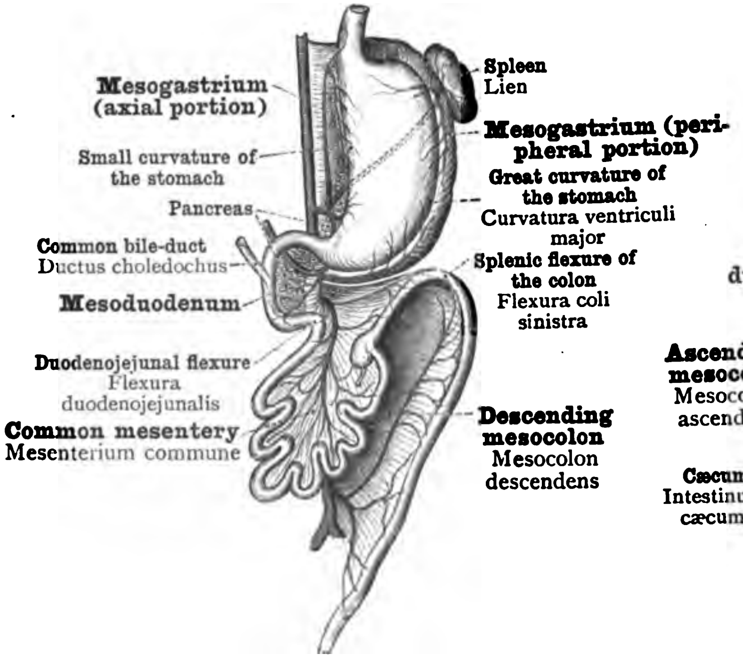


FIG. 751.—CONDITION OF THE HUMAN ALIMENTARY CANAL AND MESENTERY IN THE EIGHTH WEEK OF INTRA-UTERINE LIFE. DIAGRAMMATIC.

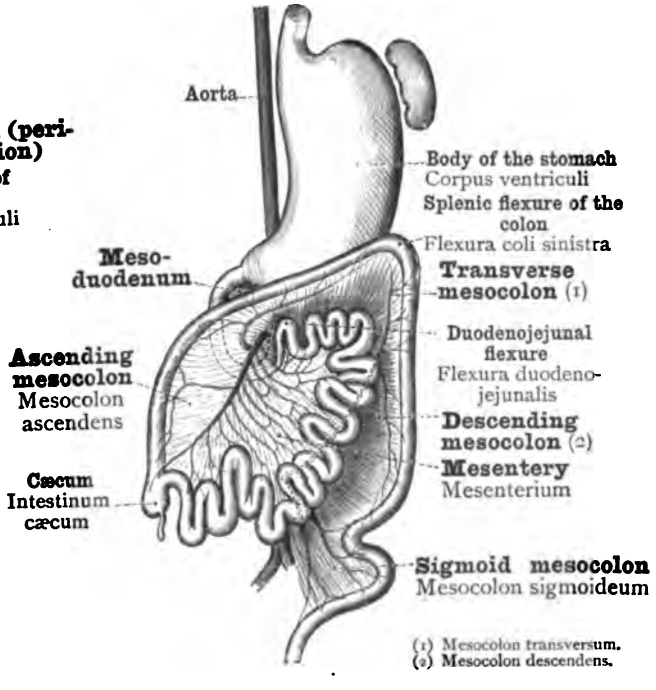


FIG. 752.—CONDITION OF THE HUMAN ALIMENTARY CANAL AND MESENTERY IN THE MIDDLE OF THE FOURTH MONTH OF INTRA-UTERINE LIFE (MONTHS OF FOUR WEEKS EACH). DIAGRAMMATIC.

Peritonæum—Peritoneum.—Mesenterium—Mesentery.

---

[1] *Umbilical Loop of the Intestine.*—"The small intestine is . . . at first quite short and straight, with a wide aperture to the yolk-sac, but gradually lengthens as the communication with the yolk-sac becomes more contracted, and . . . develops a long V-shaped loop opposite the attachment of the vitalline duct."—Quain, *op. cit.*, vol. i., part i., p. 104.

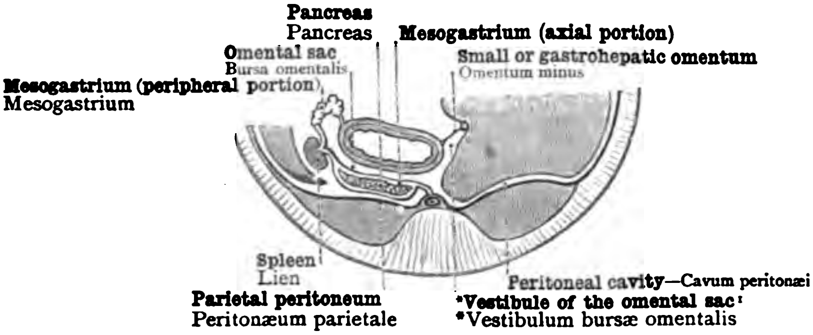

Pancreas
Pancreas
Mesogastrium (axial portion)
Omental sac
Bursa omentalis
Small or gastrohepatic omentum
Omentum minus
Mesogastrium (peripheral portion)
Mesogastrium
Spleen
Lien
Peritoneal cavity—Cavum peritonæi
Parietal peritoneum
Peritonæum parietale
*Vestibule of the omental sac[1]
*Vestibulum bursæ omentalis

FIG. 753.—MESOGASTRIUM AND OMENTAL SAC (BURSA OMENTALIS, LESSER CAVITY OF THE PERITONEUM) *BEFORE* THE ADHESION OF THE AXIAL PORTION OF THE MESOGASTRIUM TO THE PARIETAL PERITONEUM. BEGINNING OF THE THIRD MONTH OF INTRA-UTERINE LIFE (MONTHS OF FOUR WEEKS EACH). TRANSVERSE SECTION. DIAGRAMMATIC.

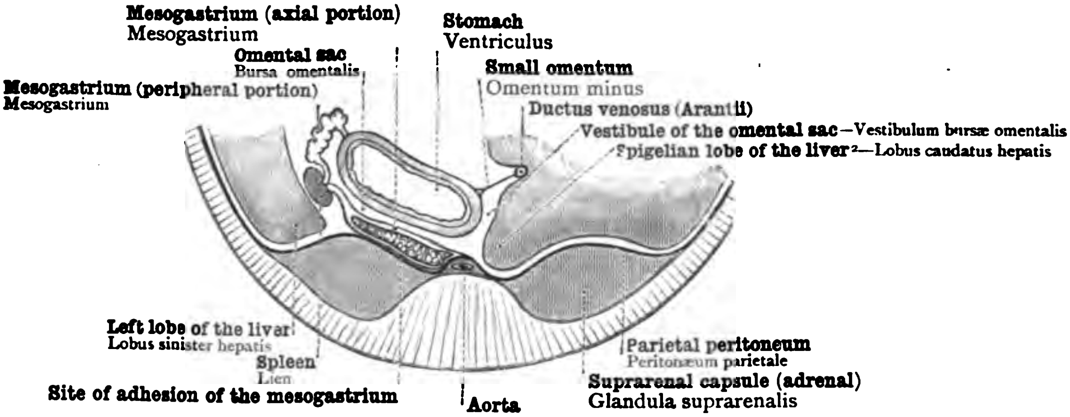


FIG. 754.—MESOGASTRIUM AND OMENTAL SAC (BURSA OMENTALIS, LESSER CAVITY OF THE PERITONEUM) *AFTER* THE ADHESION OF THE AXIAL PORTION OF THE MESOGASTRIUM TO THE PARIETAL PERITONEUM. END OF THE FOURTH MONTH OF INTRA-UTERINE LIFE (MONTHS OF FOUR WEEKS EACH). TRANSVERSE SECTION. DIAGRAMMATIC.

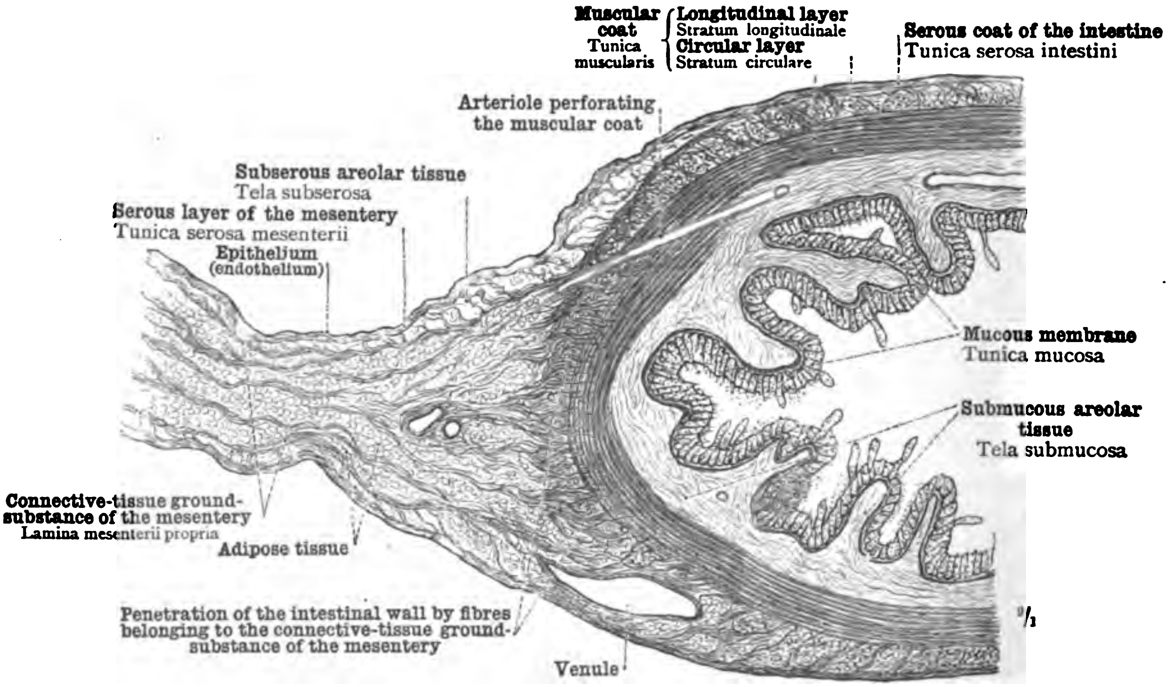


FIG. 755.—THE MESENTERY OF THE SMALL INTESTINE AND ITS ATTACHMENT TO THE INTESTINE. TRANSVERSE SECTION.

---

[1] See note [2] to p. 479.

[2] See Appendix, note [16].

Peritonæum—Peritoneum.—Mesenterium—Mesentery.

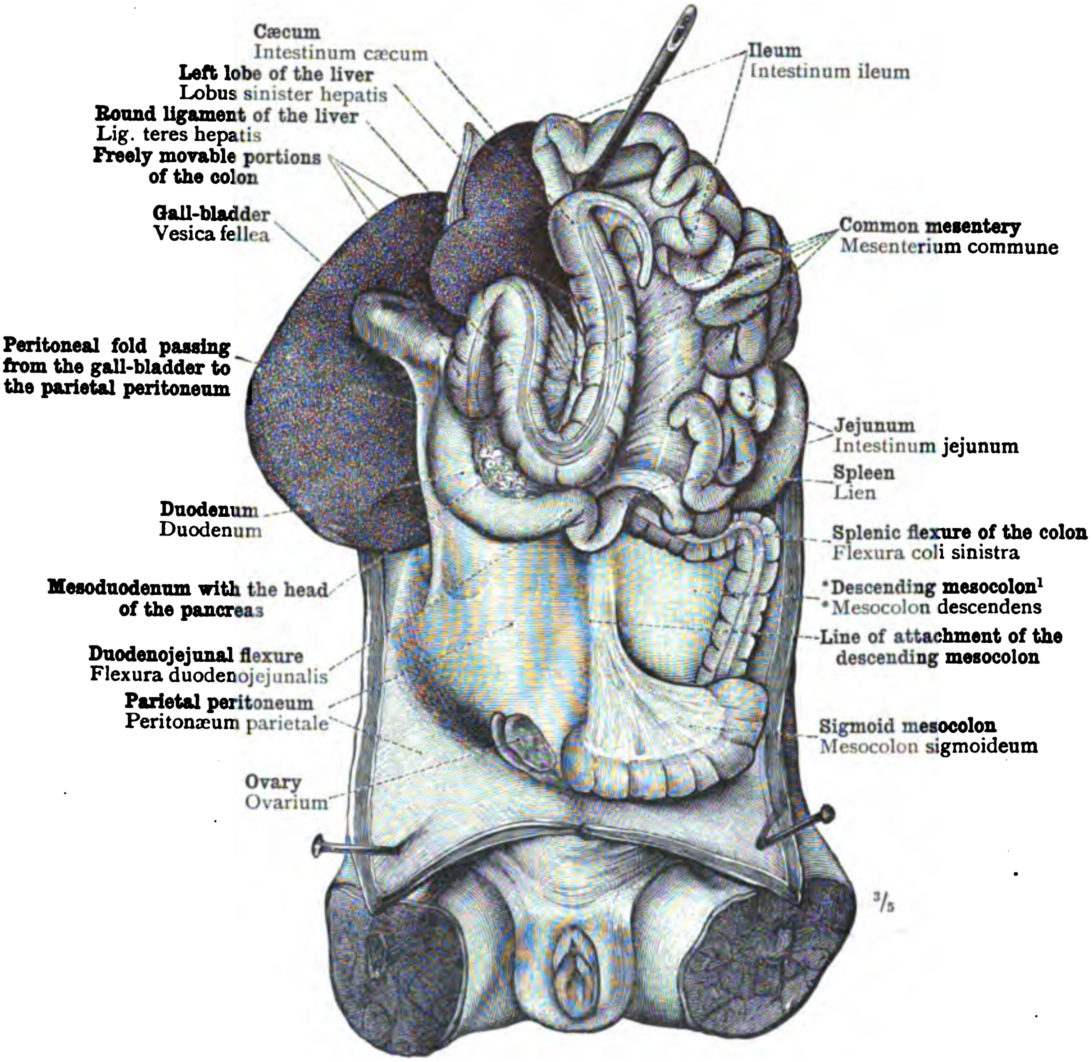


FIG. 756.—MESENTERIUM COMMUNE, COMMON MESENTERY, OF AN INFANT AGED THREE WEEKS (VARIETY).

The adhesion of the duodenum to the parietal peritoneum of the posterior wall of the abdominal cavity has taken place after the normal manner; but the adhesion of the colon and of the ascending mesocolon to the anterior surface of the duodenum and to the posterior wall of the abdominal cavity has failed to take place, so that the ascending colon is freely movable, and has been turned upwards with the cæcum and the coils of the jejunum and ileum; the delimitation of the ascending colon from the transverse colon is lacking. The ascending mesocolon combines with the transverse mesocolon and the mesentery of the small intestine to form a freely movable common mesentery, which corresponds to the mesentery of the primitive umbilical loop of the intestine (*see Fig.* 750 *on page* 451, *and note* [1] *to that page*). In the right half of the lower part of the abdominal cavity the primary parietal peritoneum remains exposed; whereas in the left half the parietal peritoneum is, as is normally the case, represented by the anterior layer of the adherent descending mesocolon (*see note* [1] *above*).

Peritonæum—Peritoneum.—Mesenterium—Mesentery.

---

[1] **Descending Mesocolon.*—I follow the author in the use of this term for the peritoneum internal to the descending colon. In England, however, the use of the term *mesentery* is usually restricted to the peritoneal folds suspending *freely movable* portions of the alimentary canal, and is no longer applied in cases in which, as here in the case of the descending mesocolon, the originally free mesentery has become adherent to the parietal peritoneum. The existence of a distinct *descending mesocolon* (in the English sense of the term) is rare.—TR.

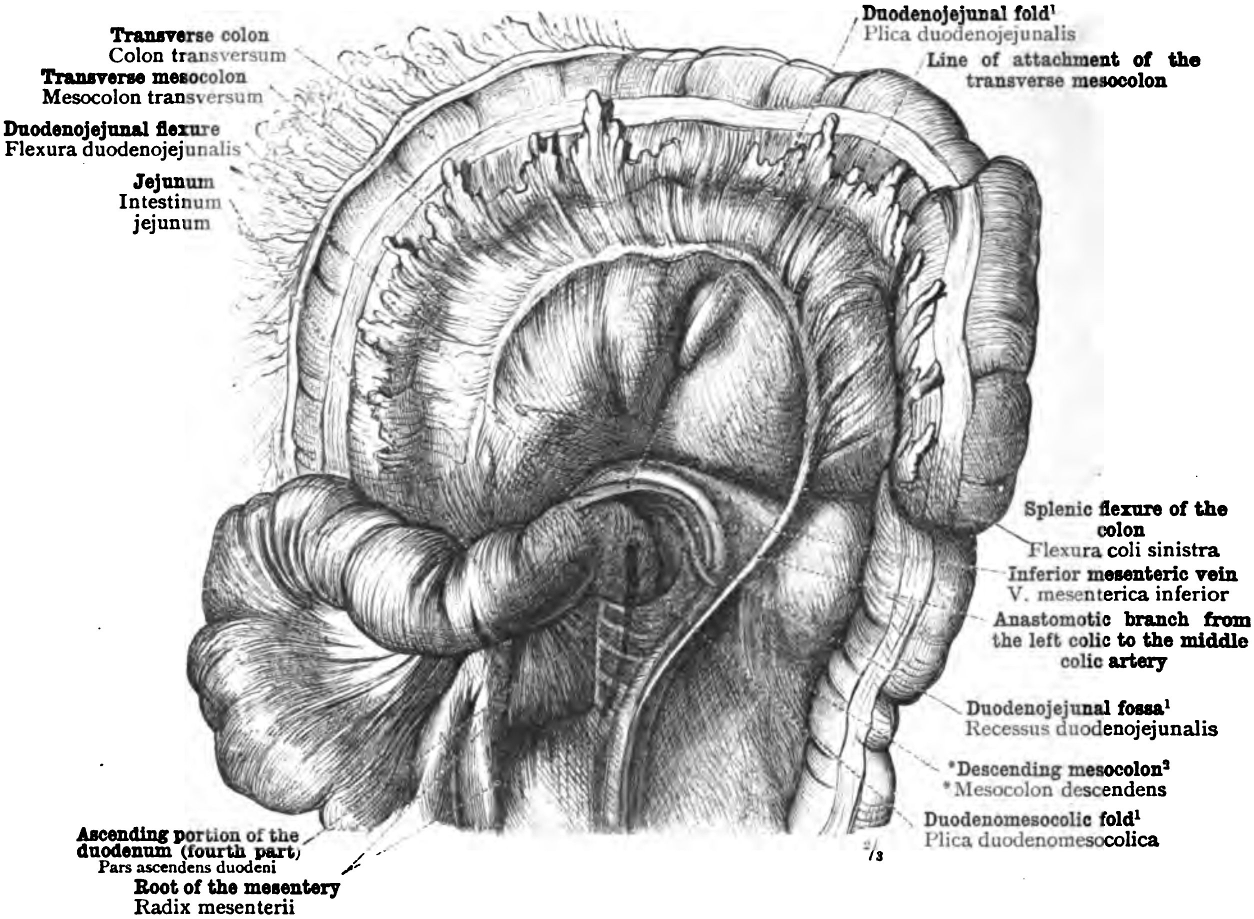

Transverse colon
Colon transversum
Transverse mesocolon
Mesocolon transversum
Duodenojejunal flexure
Flexura duodenojejunalis
Jejunum
Intestinum jejunum
Ascending portion of the duodenum (fourth part)
Pars ascendens duodeni
Root of the mesentery
Radix mesenterii
Duodenojejunal fold[1]
Plica duodenojejunalis
Line of attachment of the transverse mesocolon
Splenic flexure of the colon
Flexura coli sinistra
Inferior mesenteric vein
V. mesenterica inferior
Anastomotic branch from the left colic to the middle colic artery
Duodenojejunal fossa[1]
Recessus duodenojejunalis
***Descending mesocolon**[2]
*Mesocolon descendens
Duodenomesocolic fold[1]
Plica duodenomesocolica
2/3

FIG. 757.—RECESSUS DUODENOJEJUNALIS, DUODENOJEJUNAL FOSSA.[3]

The transverse colon has been turned upwards; the jejunum and ileum have been pushed as far to the right as possible, to expose the duodenojejunal flexure, the lower (posterior) surface of the transverse mesocolon, and the *descending mesocolon. A sound has been passed into the lower part of the duodenojejunal fossa (*i.e.*, the inferior duodenal fossa—*see Appendix, note* 20), which extends beside the ascending portion of the duodenum for its whole length, and is bounded in front by the duodenomesocolic fold (inferior duodenal fold).

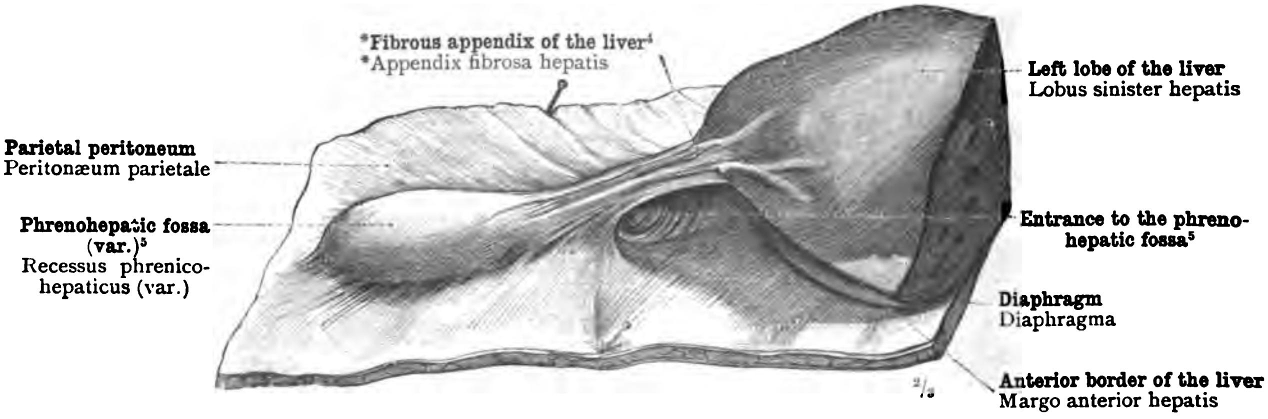

***Fibrous appendix of the liver**[4]
*Appendix fibrosa hepatis
Parietal peritoneum
Peritonæum parietale
Phrenohepatic fossa (var.)[5]
Recessus phrenicohepaticus (var.)
Left lobe of the liver
Lobus sinister hepatis
Entrance to the phrenohepatic fossa[5]
Diaphragm
Diaphragma
Anterior border of the liver
Margo anterior hepatis
2/3

FIG. 758.—RECESSUS PHRENICOHEPATICUS, PHRENOHEPATIC FOSSA.[5] A PORTION OF THE LEFT LOBE OF THE LIVER, WITH THE FIBROUS APPENDIX OF THE LIVER, AND A PORTION OF THE DIAPHRAGM.

---

[1] See Appendix, note 20.
[2] See note [1] to p. 453.
[3] See Appendix, note 21.
[4] See Appendix, note 14.
[5] See Appendix, note 22.

Peritonæum—Peritoneum.—Mesenterium—Mesentery.

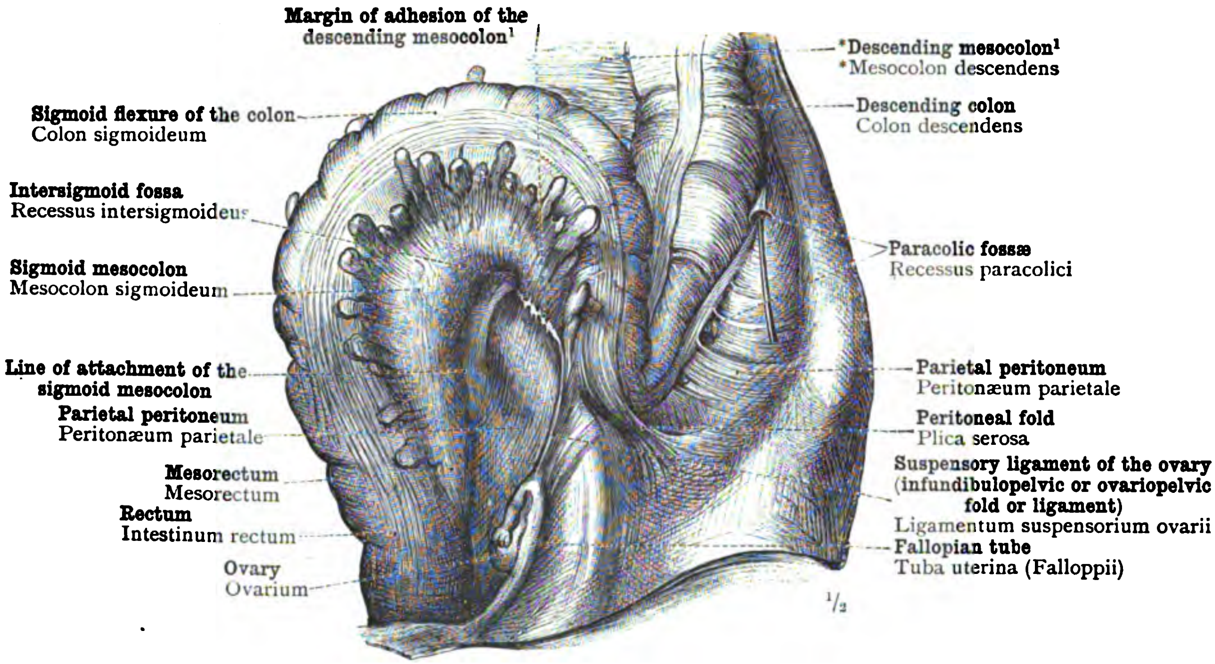


FIG. 759.—RECESSUS INTERSIGMOIDEUS, INTERSIGMOID FOSSA; RECESSUS PARACOLICI, PARACOLIC FOSSÆ. LEFT ILIAC FOSSA WITH THE LEFT LATERAL WALL OF THE PELVIS. THE SIGMOID MESOCOLON PASSING INTO THE MESORECTUM. SEEN FROM BEFORE.

The sigmoid flexure has been drawn upwards.

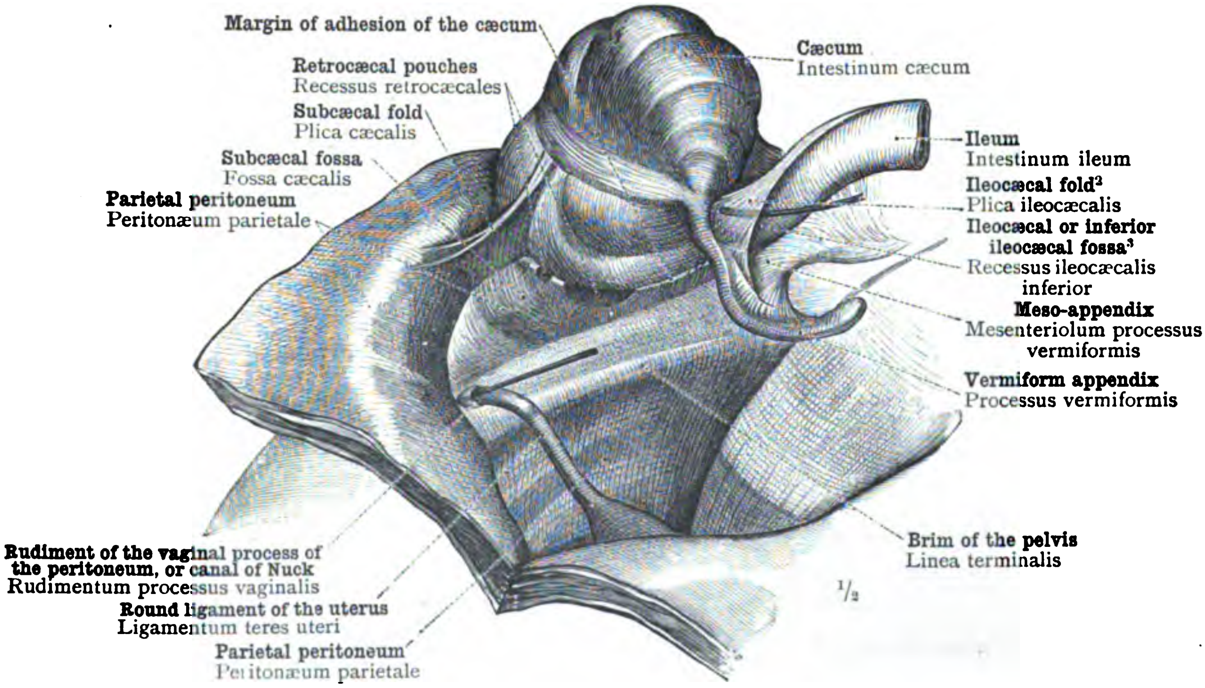


FIG. 760.—FOSSA CÆCALIS, SUBCÆCAL FOSSA; RECESSUS RETROCÆCALES, RETROCÆCAL POUCHES; RECESSUS ILEOCÆCALIS INFERIOR, INFERIOR ILEOCÆCAL FOSSA. RIGHT ILIAC FOSSA WITH THE RIGHT LATERAL WALL OF THE PELVIS. SEEN OBLIQUELY FROM BEFORE AND THE LEFT SIDE.

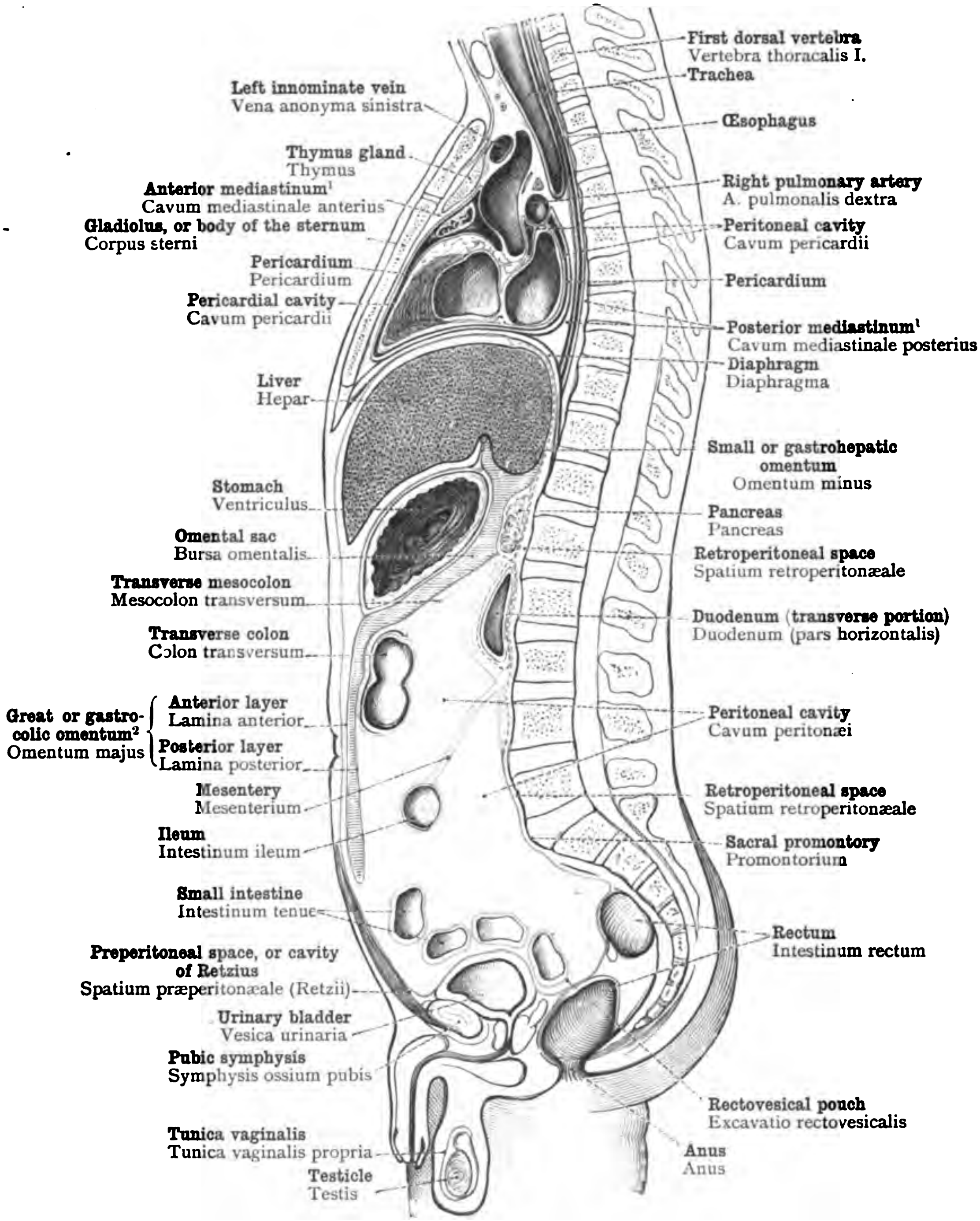
The cæcum has been drawn upwards.

[1] See note [1] to p. 453.

[2] Called by Treves the *bloodless fold*.—TR.

[3] See Appendix, note [23].

Peritonæum—Peritoneum.—Mesenterium—Mesentery.



---

[1] See Appendix, note 24.

[2] *Epiploon*, the Greek word for omentum, is occasionally used to denote the great omentum.—TR.

[3] The visceral layer of peritoneum covering the liver is not indicated in the diagram by a coloured line.—TR.

FIG. 761.—DIAGRAMMATIC REPRESENTATION OF THE NORMAL COURSE AND ARRANGEMENT OF THE PERITONEUM, THE MESENTERY, AND THE OMENTAL SAC.

The blue lines indicate the primary parietal peritoneum; the red lines, the mesogastrium; and the yellow lines, the visceral peritoneum, including the peritoneal layers of the mesentery. The continuous lines indicate the free surfaces of the peritoneum; the dotted lines, those parts of the peritoneum in which, owing to secondary adhesion, the free surfaces have disappeared (*see note* 3 *above*).

Peritonæum—Peritoneum.—Mesenterium—Mesentery.

APPARATUS RESPIRATORIUS

RESPIRATORY ORGANS

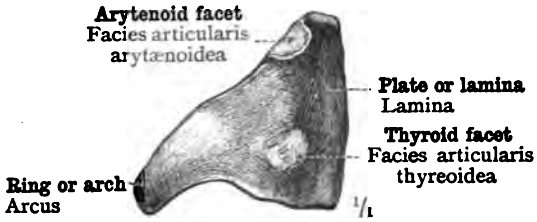


FIG. 762.—SEEN FROM THE LEFT SIDE.

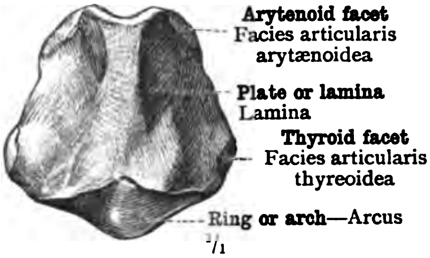


FIG. 763.—SEEN FROM BEHIND.

CARTILAGO CRICOIDEA, THE CRICOID CARTILAGE.

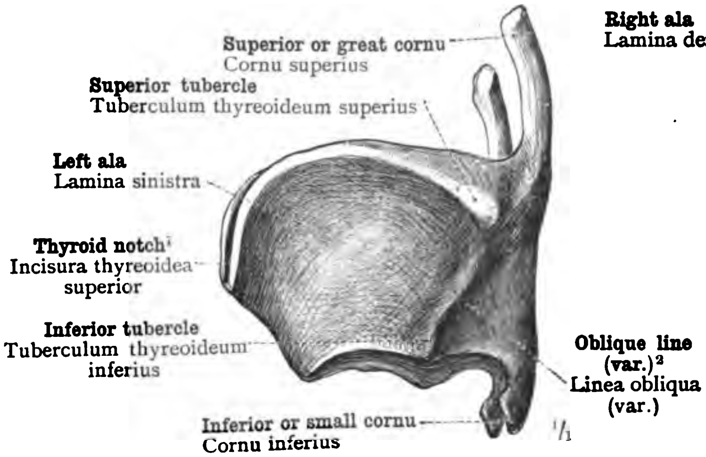


FIG. 764.—SEEN FROM THE LEFT SIDE.

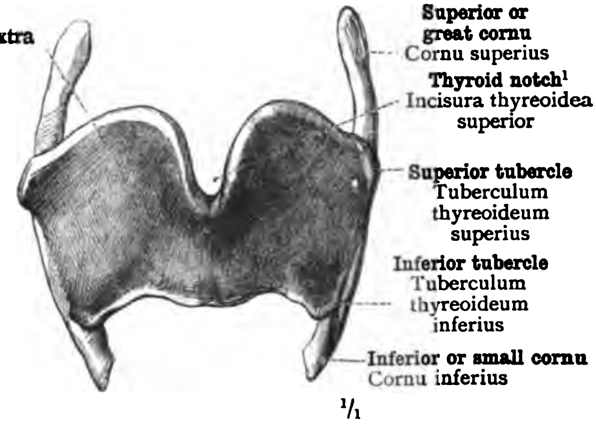

Right ala
Lamina dextra
Superior or great cornu
Cornu superius
Thyroid notch[1]
Incisura thyreoidea superior
Superior tubercle
Tuberculum thyreoideum superius
Inferior tubercle
Tuberculum thyreoideum inferius
Inferior or small cornu
Cornu inferius
1/1

FIG. 765.—SEEN FROM BEFORE.

CARTILAGO THYREOIDEA, THE THYROID CARTILAGE.

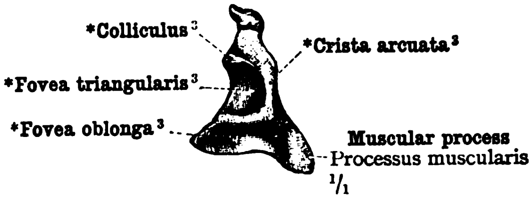


FIG. 766.—SEEN FROM THE OUTER SIDE.

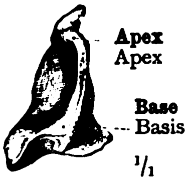


FIG. 767.—SEEN FROM BEHIND.

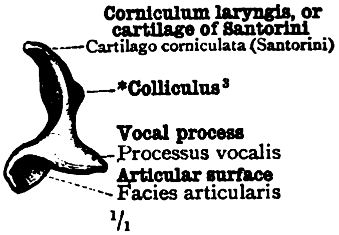


FIG. 768.—SEEN FROM THE INNER SIDE

CARTILAGO ARYTÆNOIDEA SINISTRA, THE LEFT ARYTENOID CARTILAGE,[3] WITH THE CORNICULUM LARYNGIS, OR CARTILAGE OF SANTORINI.

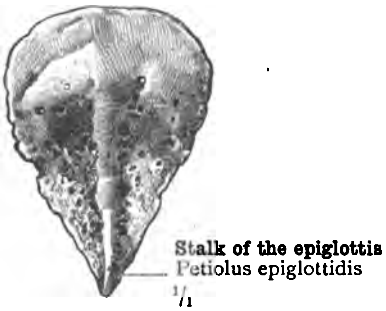


FIG. 769.—CARTILAGO EPIGLOTTICA, CARTILAGE OF THE EPIGLOTTIS. SEEN FROM BEHIND.

---

[1] Or *great median notch* of the thyroid cartilage.

[2] See Appendix, note 25.

[3] See Appendix, note 26.

The Larynx.

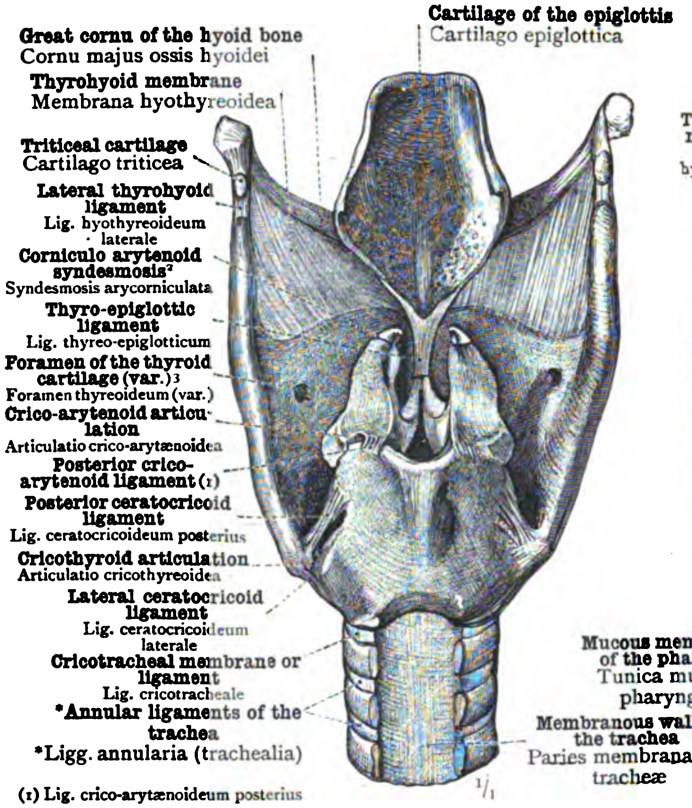

Cartilage of the epiglottis
Cartilago epiglottica
Great cornu of the hyoid bone
Cornu majus ossis hyoidei
Thyrohyoid membrane
Membrana hyothyreoidea
Triticeal cartilage
Cartilago triticea
Lateral thyrohyoid ligament
Lig. hyothyreoideum laterale
Corniculo arytenoid syndesmosis[2]
Syndesmosis arycorniculata
Thyro-epiglottic ligament
Lig. thyreo-epiglotticum
Foramen of the thyroid cartilage (var.)[3]
Foramen thyreoideum (var.)
Crico-arytenoid articulation
Articulatio crico-arytænoidea
Posterior crico-arytenoid ligament (1)
Posterior ceratocricoid ligament
Lig. ceratocricoideum posterius
Cricothyroid articulation
Articulatio cricothyreoidea
Lateral ceratocricoid ligament
Lig. ceratocricoideum laterale
Cricotracheal membrane or ligament
Lig. cricotracheale
*Annular ligaments of the trachea
*Ligg. annularia (trachealia)
Membranous wall of the trachea
Paries membranaceus tracheæ
1/1
(1) Lig. crico-arytænoideum posterius

Fig. 770.—Ligaments of the Larynx, and the Thyrohyoid Membrane, seen from Behind.

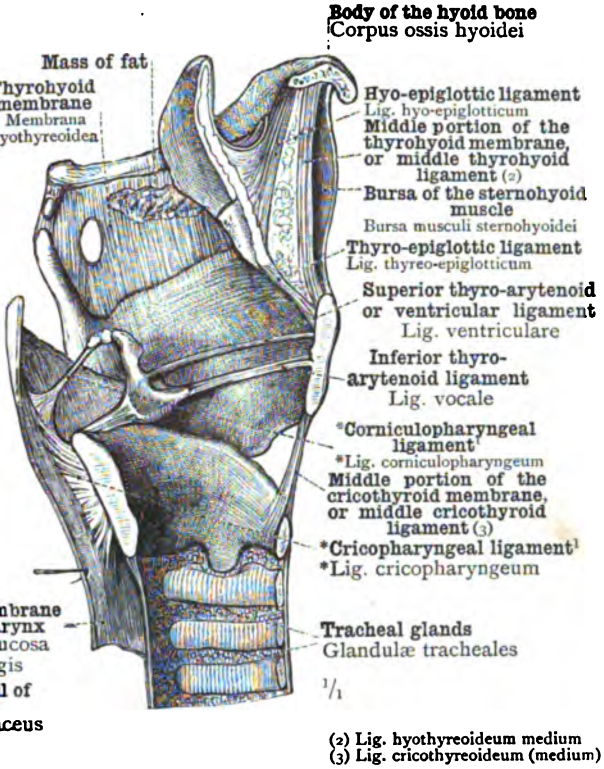

Body of the hyoid bone
Corpus ossis hyoidei
Mass of fat
Thyrohyoid membrane
Membrana hyothyreoidea
Hyo-epiglottic ligament
Lig. hyo-epiglotticum
Middle portion of the thyrohyoid membrane, or middle thyrohyoid ligament (2)
Bursa of the sternohyoid muscle
Bursa musculi sternohyoidei
Thyro-epiglottic ligament
Lig. thyreo-epiglotticum
Superior thyro-arytenoid or ventricular ligament
Lig. ventriculare
Inferior thyro-arytenoid ligament
Lig. vocale
*Corniculopharyngeal ligament[1]
*Lig. corniculopharyngeum
Middle portion of the cricothyroid membrane, or middle cricothyroid ligament (3)
*Cricopharyngeal ligament[1]
*Lig. cricopharyngeum
Mucous membrane of the pharynx
Tunica mucosa pharyngis
Tracheal glands
Glandulæ tracheales
1/1
(2) Lig. hyothyreoideum medium
(3) Lig. cricothyreoideum (medium)

Fig. 771.—Ligaments of the Larynx, and the Thyrohyoid Membrane, shown in the Left Half of a Sagittally-hemisected Larynx. Seen from Within.

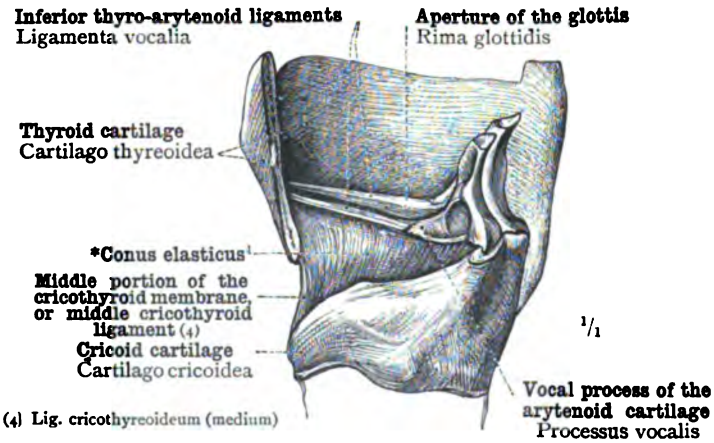

Inferior thyro-arytenoid ligaments
Ligamenta vocalia
Aperture of the glottis
Rima glottidis
Thyroid cartilage
Cartilago thyreoidea
*Conus elasticus[4]
Middle portion of the cricothyroid membrane, or middle cricothyroid ligament (4)
Cricoid cartilage
Cartilago cricoidea
1/1
Vocal process of the arytenoid cartilage
Processus vocalis
(4) Lig. cricothyreoideum (medium)

Fig. 772.—*Conus Elasticus,[4] with the Inferior Thyro-arytenoid Ligaments, which latter form the Elastic Elements of the True Vocal Cords (Plicæ Vocales). Seen from the Left Side.

The parts have been laid bare by the removal of the greater part of the left ala of the thyroid cartilage.

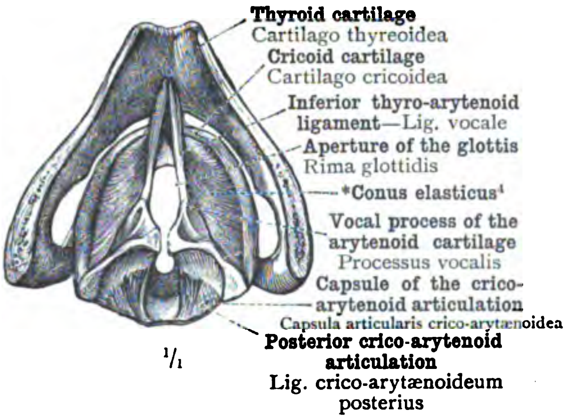

Thyroid cartilage
Cartilago thyreoidea
Cricoid cartilage
Cartilago cricoidea
Inferior thyro-arytenoid ligament—Lig. vocale
Aperture of the glottis
Rima glottidis
*Conus elasticus[4]
Vocal process of the arytenoid cartilage
Processus vocalis
Capsule of the crico-arytenoid articulation
Capsula articularis crico-arytænoidea
Posterior crico-arytenoid articulation
Lig. crico-arytænoideum posterius
1/1

Fig. 773.—*Conus Elasticus,[4] with the Inferior Thyro-arytenoid Ligaments, displayed from Above by the Removal of the Upper Portions of the Alæ of the Thyroid Cartilage and the Soft Parts internal to the Alæ.

---

[1] See Appendix, note 27.

[2] See Appendix, note 28.

[3] See Appendix, note 29.

[4] See Appendix, note 30.

The Larynx.

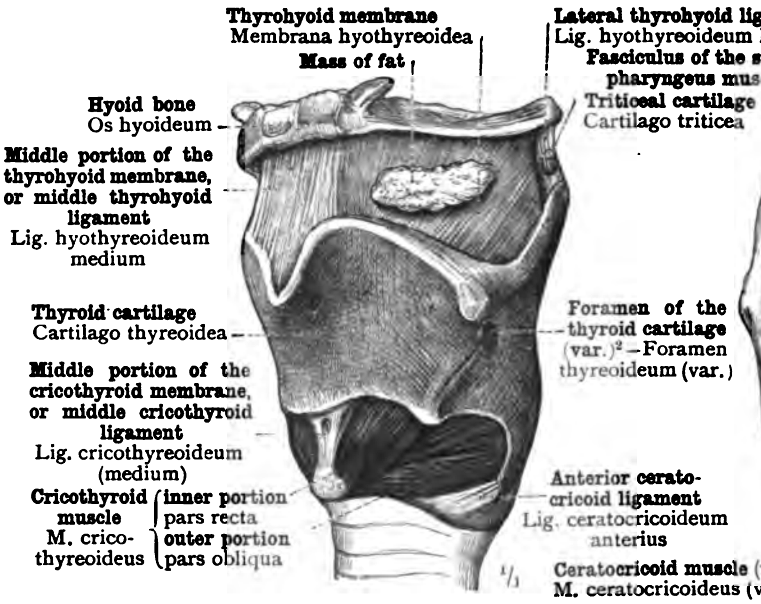

Thyrohyoid membrane
Membrana hyothyreoidea
Mass of fat
Lateral thyrohyoid ligament
Lig. hyothyreoideum laterale
Hyoid bone
Os hyoideum
Triticeal cartilage
Cartilago triticea
Middle portion of the thyrohyoid membrane, or middle thyrohyoid ligament
Lig. hyothyreoideum medium
Thyroid cartilage
Cartilago thyreoidea
Foramen of the thyroid cartilage (var.)[2] – Foramen thyreoideum (var.)
Middle portion of the cricothyroid membrane, or middle cricothyroid ligament
Lig. cricothyreoideum (medium)
Cricothyroid muscle
M. crico-thyreoideus
inner portion
pars recta
outer portion
pars obliqua
Anterior ceratocricoid ligament
Lig. ceratocricoideum anterius
1/1

FIG. 774.—THE LARYNX WITH THE THYROHYOID MEMBRANE AND THE CRICOTHYROID MUSCLE, SEEN OBLIQUELY FROM THE LEFT SIDE AND BEFORE.

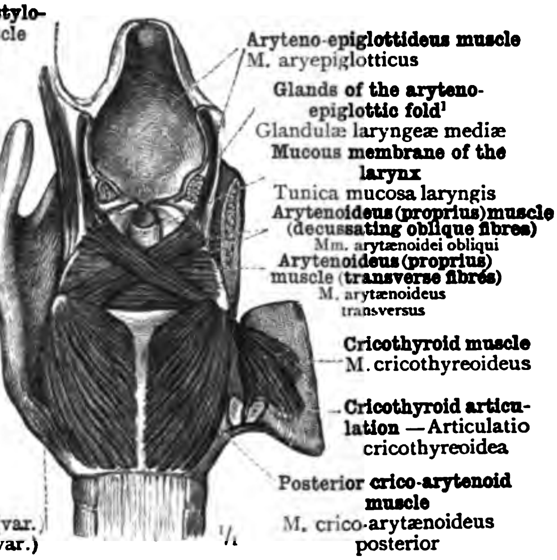

Fasciculus of the stylo-pharyngeus muscle
Aryteno-epiglottideus muscle
M. aryepiglotticus
Glands of the aryteno-epiglottic fold[1]
Glandulæ laryngeæ mediæ
Mucous membrane of the larynx
Tunica mucosa laryngis
Arytenoideus (proprius) muscle (decussating oblique fibres)
Mm. arytænoidei obliqui
Arytenoideus (proprius) muscle (transverse fibres)
M. arytænoideus transversus
Cricothyroid muscle
M. cricothyreoideus
Cricothyroid articulation — Articulatio cricothyreoidea
Posterior crico-arytenoid muscle
M. crico-arytænoideus posterior
Ceratocricoid muscle (var.)
M. ceratocricoideus (var.)
1/1

FIG. 775.—THE MUSCLES OF THE LARYNX SEEN FROM BEHIND.

The right ala of the thyroid cartilage has been in part removed.

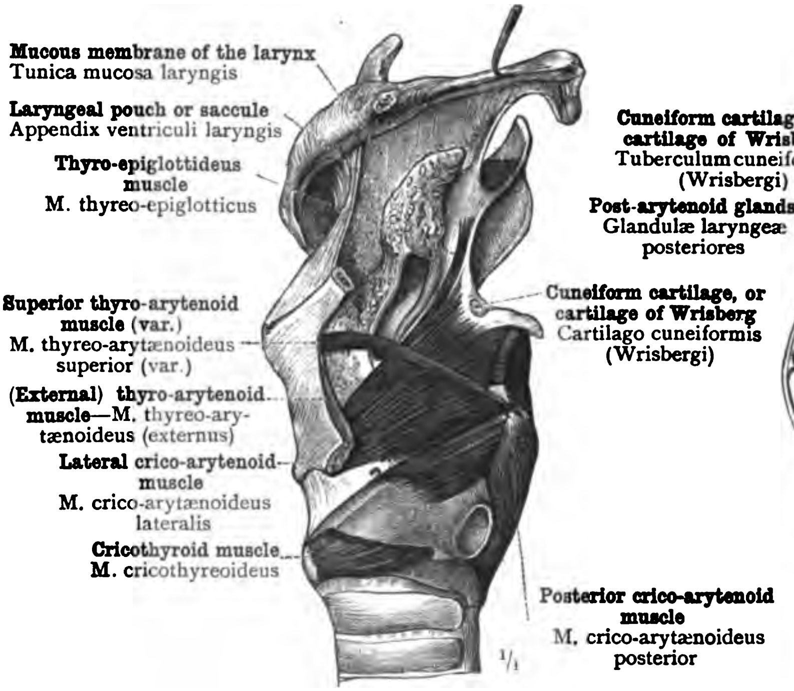

Mucous membrane of the larynx
Tunica mucosa laryngis
Laryngeal pouch or saccule
Appendix ventriculi laryngis
Thyro-epiglottideus muscle
M. thyreo-epiglotticus
Superior thyro-arytenoid muscle (var.)
M. thyreo-arytænoideus superior (var.)
(External) thyro-arytenoid muscle—M. thyreo-arytænoideus (externus)
Lateral crico-arytenoid muscle
M. crico-arytænoideus lateralis
Cricothyroid muscle
M. cricothyreoideus
Cuneiform cartilage, or cartilage of Wrisberg
Cartilago cuneiformis (Wrisbergi)
Posterior crico-arytenoid muscle
M. crico-arytænoideus posterior
1/1

FIG. 776.—THE MUSCLES OF THE LARYNX AS SEEN FROM THE LEFT SIDE AFTER THE REMOVAL OF THE GREATER PART OF THE LEFT ALA OF THE THYROID CARTILAGE.

The laryngeal pouch or saccule (the recess leading upward from the anterior part of the ventricle) is unusually large.

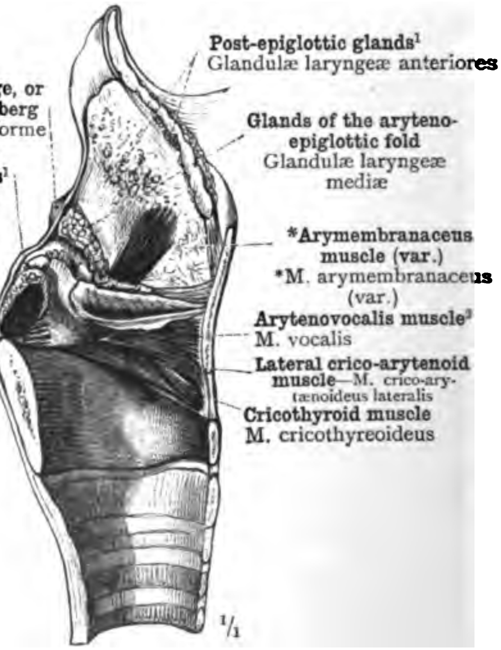

Cuneiform cartilage, or cartilage of Wrisberg
Tuberculum cuneiforme (Wrisbergi)
Post-arytenoid glands[1]
Glandulæ laryngeæ posteriores
Post-epiglottic glands[1]
Glandulæ laryngeæ anteriores
Glands of the aryteno-epiglottic fold
Glandulæ laryngeæ mediæ
*Arymembranaceus muscle (var.)
*M. arymembranaceus (var.)
Arytenovocalis muscle[3]
M. vocalis
Lateral crico-arytenoid muscle—M. crico-arytænoideus lateralis
Cricothyroid muscle
M. cricothyreoideus
1/1

FIG. 777.—THE MUSCLES AND MUCOUS GLANDS OF THE LARYNX, AS SEEN FROM WITHIN IN THE LEFT HALF OF A SAGITTALLY-HEMISECTED LARYNX.

Part of the mucous membrane covering the true and false vocal cords has been left *in situ*.

[1] See Appendix, note 31.

[2] See Appendix, note 29.

[3] *Arytenovocalis Muscle.*—This is called by Ludwig *portio aryvocalis musculi thyreo-arytenoidei.*—Tr.

The Larynx.

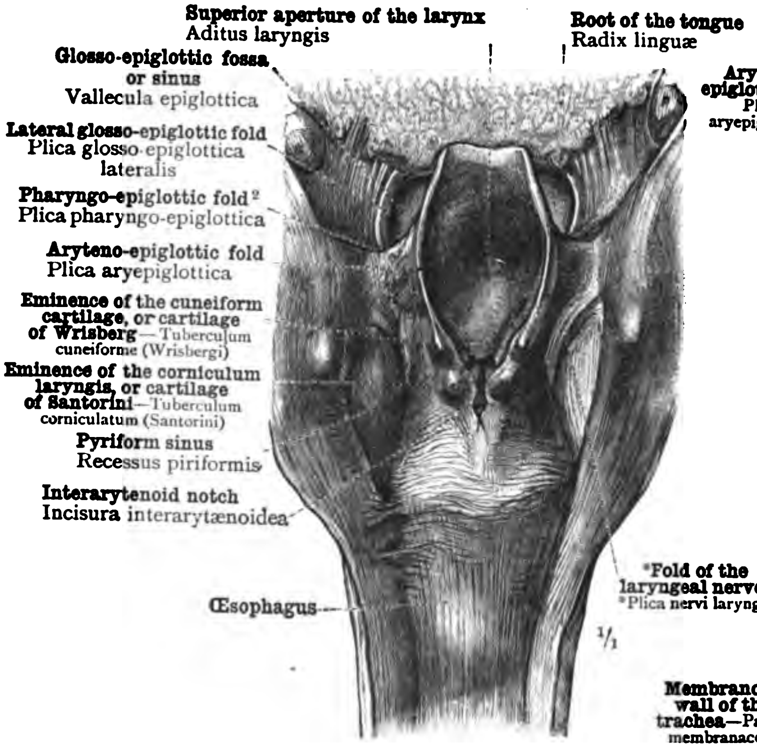

Superior aperture of the larynx
Aditus laryngis
Root of the tongue
Radix linguæ
Glosso-epiglottic fossa, or sinus
Vallecula epiglottica
Lateral glosso-epiglottic fold
Plica glosso-epiglottica lateralis
Pharyngo-epiglottic fold[2]
Plica pharyngo-epiglottica
Aryteno-epiglottic fold
Plica aryepiglottica
Eminence of the cuneiform cartilage, or cartilage of Wrisberg—Tuberculum cuneiforme (Wrisbergi)
Eminence of the corniculum laryngis, or cartilage of Santorini—Tuberculum corniculatum (Santorini)
Pyriform sinus
Recessus piriformis
Interarytenoid notch
Incisura interarytænoidea
Œsophagus
***Fold of the laryngeal nerve**[3]
*Plica nervi laryngei
1/1

FIG. 778.—ANTERIOR WALL OF THE LARYNGEAL PART OF THE PHARYNX WITH THE SUPERIOR APERTURE OF THE LARYNX.

The posterior wall of the pharynx has been divided along the median line, and the lateral walls have been turned outwards.

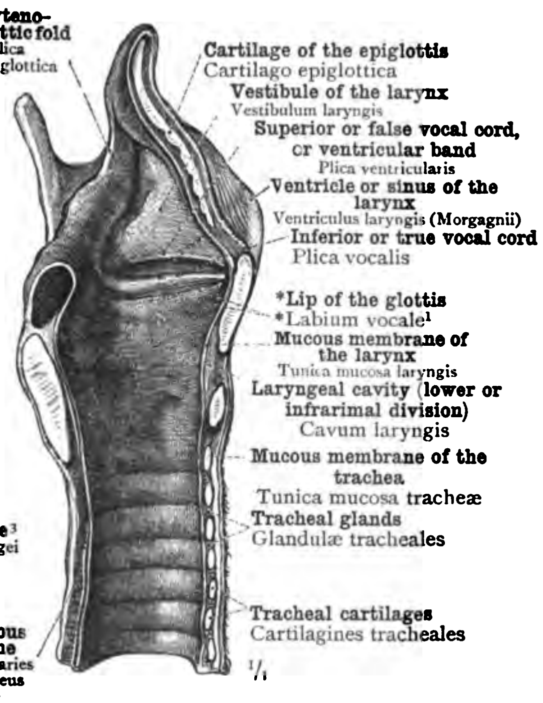
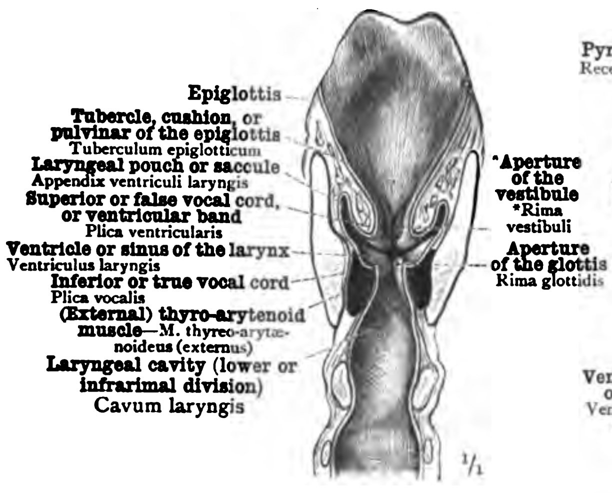
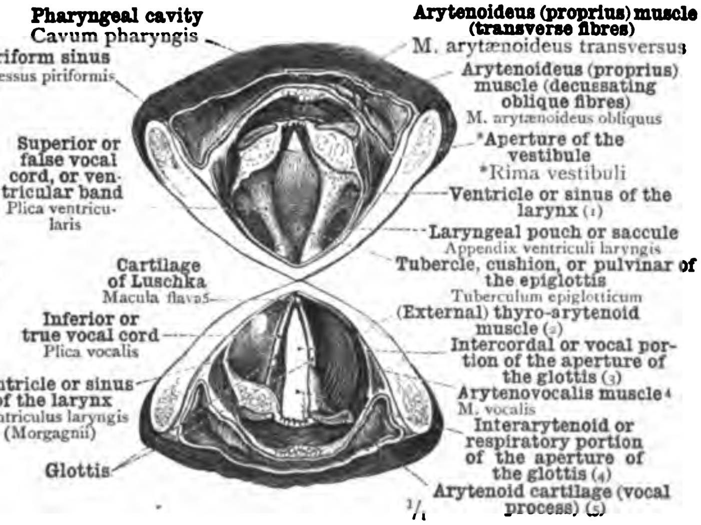

Aryteno-epiglottic fold
Plica aryepiglottica
Cartilage of the epiglottis
Cartilago epiglottica
Vestibule of the larynx
Vestibulum laryngis
Superior or false vocal cord, or ventricular band
Plica ventricularis
Ventricle or sinus of the larynx
Ventriculus laryngis (Morgagnii)
Inferior or true vocal cord
Plica vocalis
***Lip of the glottis**
*Labium vocale[1]
Mucous membrane of the larynx
Tunica mucosa laryngis
Laryngeal cavity (lower or infrarimal division)
Cavum laryngis
Mucous membrane of the trachea
Tunica mucosa tracheæ
Tracheal glands
Glandulæ tracheales
Tracheal cartilages
Cartilagines tracheales
Membranous wall of the trachea—Paries membranaceus tracheæ
1/1

FIG. 779.—LEFT HALF OF A SAGITTALLY-HEMISECTED LARYNX. PLICA VOCALIS, INFERIOR OR TRUE VOCAL CORD; PLICA VENTRICULARIS, SUPERIOR OR FALSE VOCAL CORD, OR VENTRICULAR BAND; VENTRICULUS LARYNGIS, VENTRICLE OR SINUS OF THE LARYNX.


Epiglottis
Tubercle, cushion, or pulvinar of the epiglottis
Tuberculum epiglotticum
Laryngeal pouch or saccule
Appendix ventriculi laryngis
Superior or false vocal cord, or ventricular band
Plica ventricularis
Ventricle or sinus of the larynx
Ventriculus laryngis
Inferior or true vocal cord
Plica vocalis
(External) thyro-arytenoid muscle—M. thyreo-arytænoideus (externus)
Laryngeal cavity (lower or infrarimal division)
Cavum laryngis
***Aperture of the vestibule**
*Rima vestibuli
Aperture of the glottis
Rima glottidis
1/1


Pharyngeal cavity
Cavum pharyngis
Pyriform sinus
Recessus piriformis
Superior or false vocal cord, or ventricular band
Plica ventricularis
Cartilage of Luschka
Macula flava[5]
Inferior or true vocal cord
Plica vocalis
Ventricle or sinus of the larynx
Ventriculus laryngis (Morgagnii)
Glottis
Arytenoideus (proprius) muscle (transverse fibres)
M. arytænoideus transversus
Arytenoideus (proprius) muscle (decussating oblique fibres)
M. arytænoideus obliquus
***Aperture of the vestibule**
*Rima vestibuli
Ventricle or sinus of the larynx (1)
Laryngeal pouch or saccule
Appendix ventriculi laryngis
Tubercle, cushion, or pulvinar of the epiglottis
Tuberculum epiglotticum
(External) thyro-arytenoid muscle (2)
Intercordal or vocal portion of the aperture of the glottis (3)
Arytenovocalis muscle[4]
M. vocalis
Interarytenoid or respiratory portion of the aperture of the glottis (4)
Arytenoid cartilage (vocal process) (5)
1/1

(1) Ventriculus laryngis (Morgagnii) (2) M. thyreo-arytænoideus (externus) (3) Pars intermembranacea rimæ glottidis (4) Pars intercartilaginea rimæ glottidis (5) Cartilago arytænoidea (processus vocalis)

FIG. 780.—ANTERIOR HALF OF A CORONALLY-DIVIDED LARYNX. THE VOCAL APPARATUS, OR GLOTTIS; THE APERTURE OF THE GLOTTIS, RIMA GLOTTIDIS; THE INFERIOR OR TRUE VOCAL CORD, PLICA VOCALIS, WITH THE LABIUM VOCALE; THE SUPERIOR OR FALSE VOCAL CORD, OR VENTRICULAR BAND, PLICA VENTRICULARIS; THE VENTRICLE OR SINUS OF THE LARYNX, VENTRICULUS LARYNGIS, AND THE LARYNGEAL POUCH OR SACCULE, APPENDIX VENTRICULI LARYNGIS.

FIG. 781.—UPPER AND LOWER HALVES OF A LARYNX, DIVIDED INTO TWO PARTS BY A HORIZONTAL SECTION PASSING THROUGH THE VENTRICLES OF THE LARYNX, WITH THE ADJACENT PART OF THE PHARYNX.

In the lower half on the right side the mucous membrane of the ventricle of the larynx has been removed, to show the arytenovocalis[4] and (external) thyro-arytenoid muscles.

[1] See Appendix, note 32.

[2] See note 7 to p. 415.

[3] See note 3 to p. 434.

[4] See note 3 to p. 460.

[5] See Appendix, note 33.

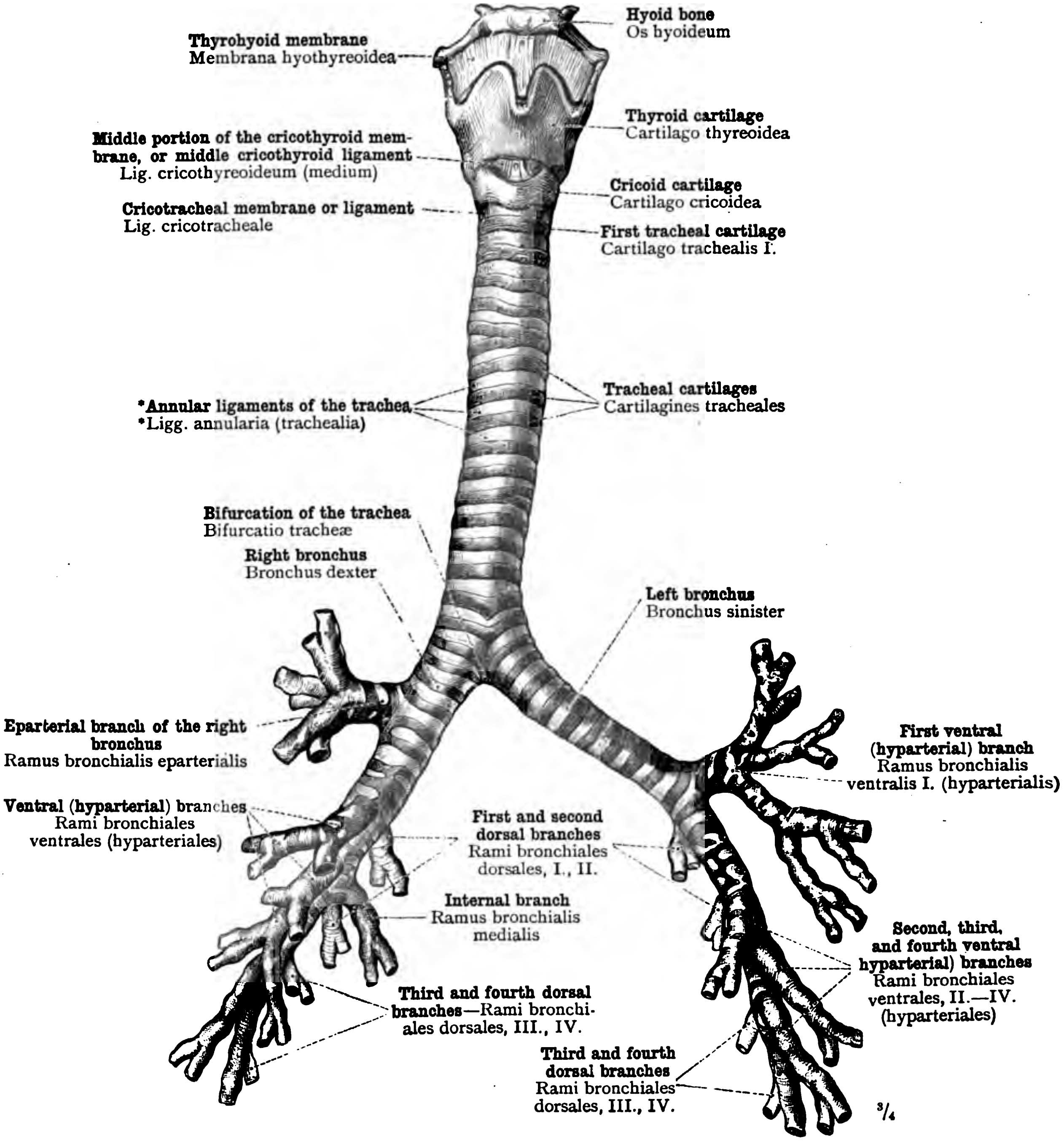

Hyoid bone
Os hyoideum
Thyrohyoid membrane
Membrana hyothyreoidea
Thyroid cartilage
Cartilago thyreoidea
Middle portion of the cricothyroid membrane, or middle cricothyroid ligament
Lig. cricothyreoideum (medium)
Cricoid cartilage
Cartilago cricoidea
Cricotracheal membrane or ligament
Lig. cricotracheale
First tracheal cartilage
Cartilago trachealis I.
*Annular ligaments of the trachea
*Ligg. annularia (trachealia)
Tracheal cartilages
Cartilagines tracheales
Bifurcation of the trachea
Bifurcatio tracheæ
Right bronchus
Bronchus dexter
Left bronchus
Bronchus sinister
Eparterial branch of the right bronchus
Ramus bronchialis eparterialis
First ventral (hyparterial) branch
Ramus bronchialis ventralis I. (hyparterialis)
Ventral (hyparterial) branches
Rami bronchiales ventrales (hyparteriales)
First and second dorsal branches
Rami bronchiales dorsales, I., II.
Internal branch
Ramus bronchialis medialis
Second, third, and fourth ventral hyparterial) branches
Rami bronchiales ventrales, II.—IV. (hyparteriales)
Third and fourth dorsal branches—Rami bronchiales dorsales, III., IV.
Third and fourth dorsal branches
Rami bronchiales dorsales, III., IV.
3/4

Fig. 782.—The Trachea, its Bifurcation into the Right and Left Bronchial Trunks (Bronchi), and the Larger Subdivisions of these (Rami Bronchiales). Seen from Before.

The air-passages were filled with tallow before opening the thorax. Subsequently the parts were dissected out and dried.

The Trachea and the Bronchial Ramification.

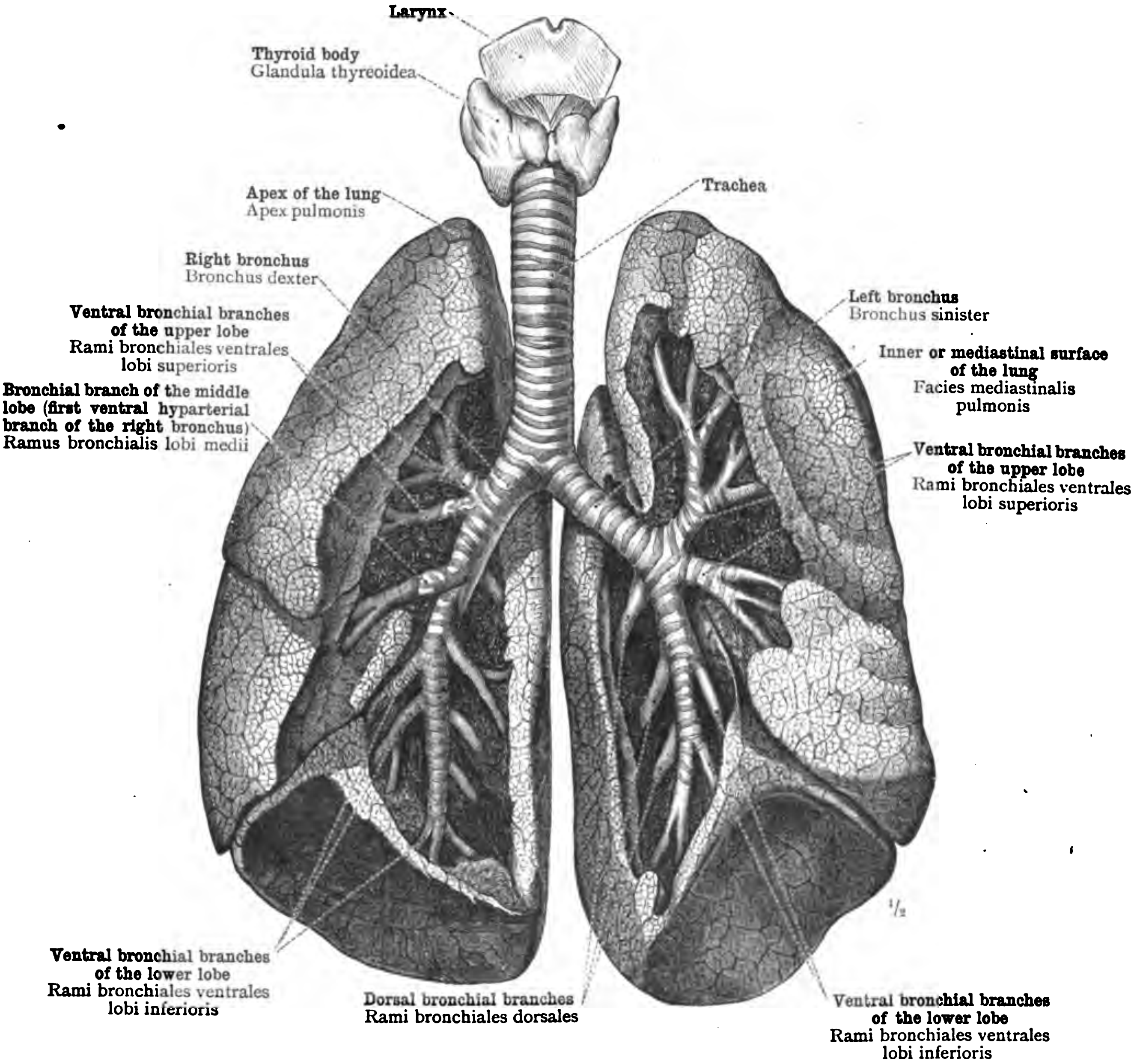

Larynx
Thyroid body
Glandula thyreoidea
Apex of the lung
Apex pulmonis
Trachea
Right bronchus
Bronchus dexter
Ventral bronchial branches of the upper lobe
Rami bronchiales ventrales lobi superioris
Bronchial branch of the middle lobe (first ventral hyparterial branch of the right bronchus)
Ramus bronchialis lobi medii
Left bronchus
Bronchus sinister
Inner or mediastinal surface of the lung
Facies mediastinalis pulmonis
Ventral bronchial branches of the upper lobe
Rami bronchiales ventrales lobi superioris
1/2
Ventral bronchial branches of the lower lobe
Rami bronchiales ventrales lobi inferioris
Dorsal bronchial branches
Rami bronchiales dorsales
Ventral bronchial branches of the lower lobe
Rami bronchiales ventrales lobi inferioris

FIG. 783.—THE TRACHEA, ITS BIFURCATION INTO THE RIGHT AND LEFT BRONCHIAL TRUNKS (BRONCHI), AND THE LARGER SUBDIVISIONS OF THESE (RAMI BRONCHIALES). RELATIONS OF THE BRONCHIAL BRANCHES TO THE LOBES OF THE LUNG AND TO THE DIFFERENT REGIONS OF THESE LOBES. SEEN FROM BEFORE.

After the lungs had been steeped in alcohol, the bronchial tubes were exposed from the inner or mediastinal surface of the lungs by the removal of the portions of lung tissue by which they were covered. The lungs were drawn a little apart from one another anteriorly.

The Trachea and the Bronchial Ramification.

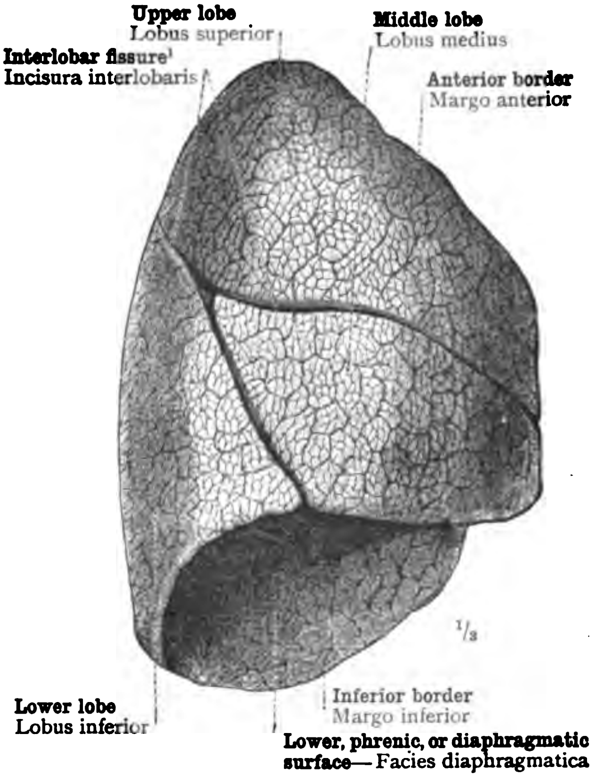


FIG. 784.—RIGHT LUNG. OUTER OR COSTAL SURFACE.

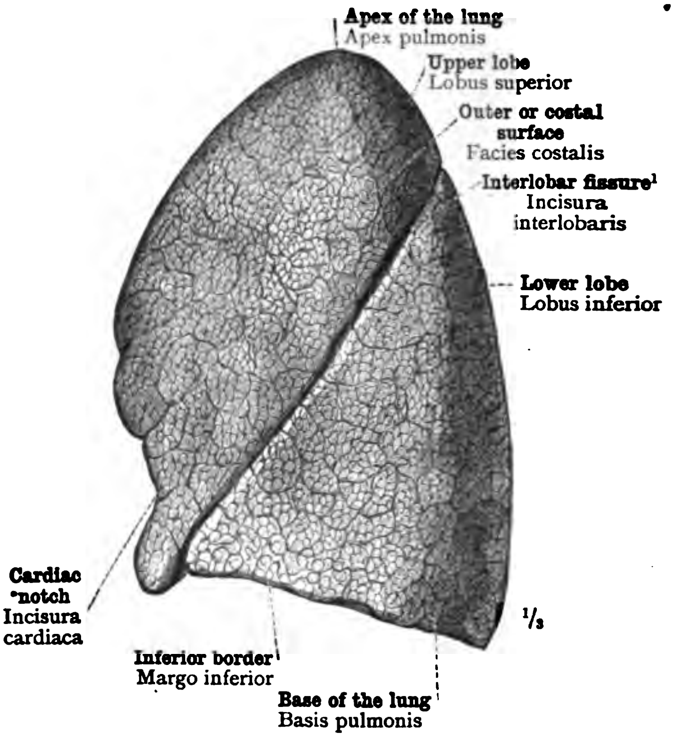


FIG. 785.—LEFT LUNG. OUTER OR COSTAL SURFACE.

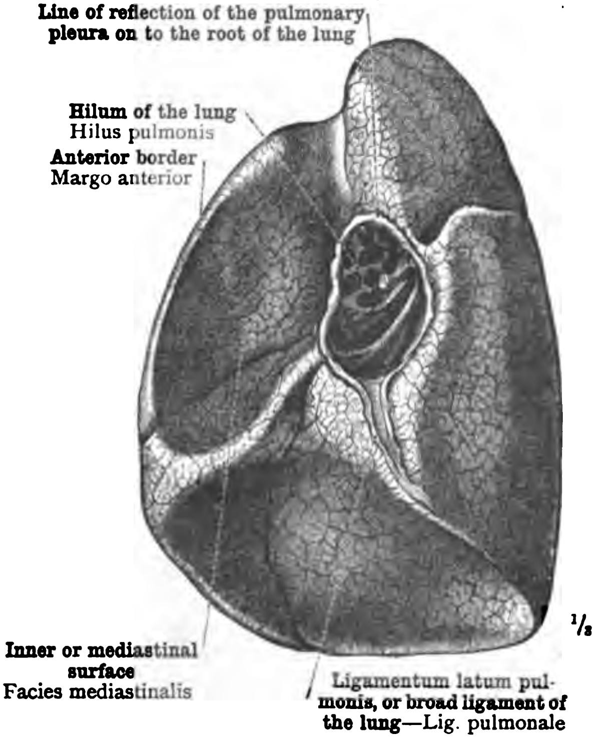

Line of reflection of the pulmonary pleura on to the root of the lung
Hilum of the lung
Hilus pulmonis
Anterior border
Margo anterior
1/3
Inner or mediastinal surface
Facies mediastinalis
Ligamentum latum pulmonis, or broad ligament of the lung—Lig. pulmonale

FIG. 786.—RIGHT LUNG. INNER OR MEDIASTINAL SURFACE, WITH THE HILUM LAID BARE BY THE REMOVAL OF THE STRUCTURES FORMING THE ROOT OF THE LUNG.

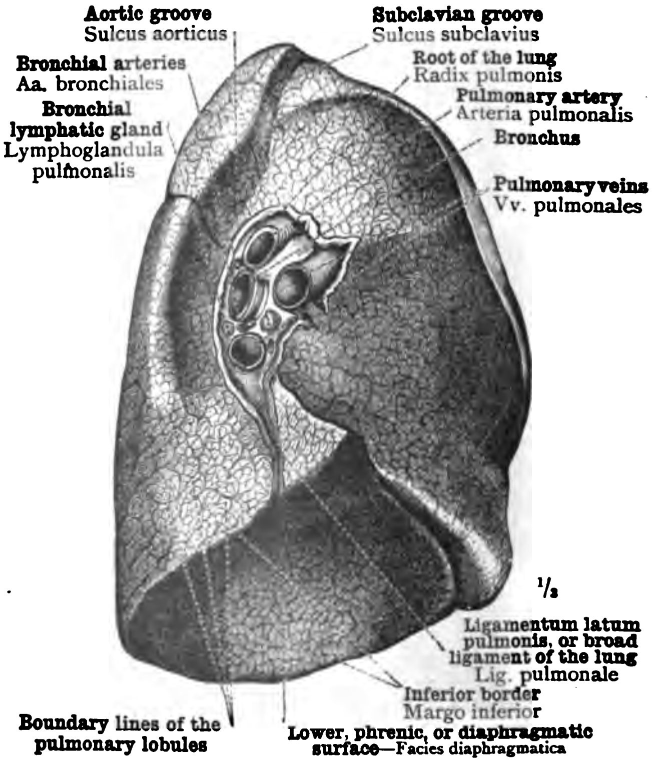
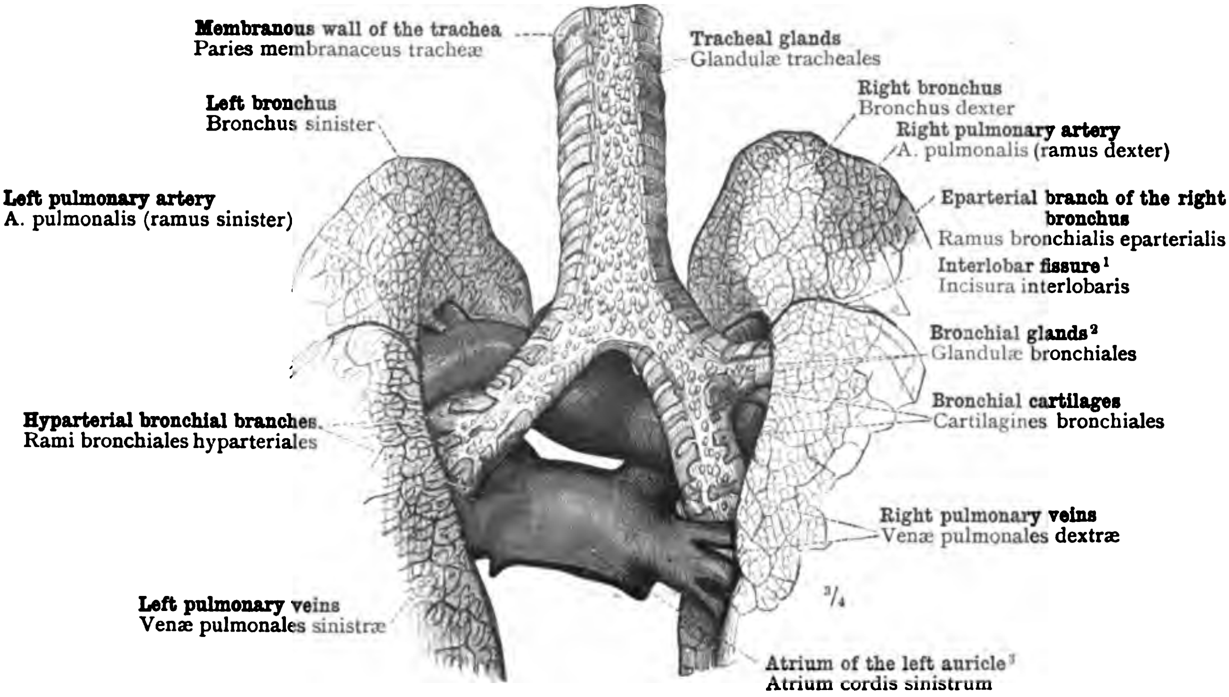


FIG. 787.—LEFT LUNG. INNER OR MEDIASTINAL SURFACE, WITH THE ROOT OF THE LUNG CUT ACROSS.

Pulmo—The lung.

---

[1] *Fissures of the Lung.*—The single fissure of the left lung, and the lower, more oblique, of the two fissures of the right lung, are sometimes distinguished as *great fissures* from the upper, nearly horizontal fissure of the right lung, which may be called the *supplementary fissure.*—TR.


Membranous wall of the trachea
Paries membranaceus tracheæ
Left bronchus
Bronchus sinister
Left pulmonary artery
A. pulmonalis (ramus sinister)
Hyparterial bronchial branches
Rami bronchiales hyparteriales
Left pulmonary veins
Venæ pulmonales sinistræ
Tracheal glands
Glandulæ tracheales
Right bronchus
Bronchus dexter
Right pulmonary artery
A. pulmonalis (ramus dexter)
Eparterial branch of the right bronchus
Ramus bronchialis eparterialis
Interlobar fissure[1]
Incisura interlobaris
Bronchial glands[2]
Glandulæ bronchiales
Bronchial cartilages
Cartilagines bronchiales
Right pulmonary veins
Venæ pulmonales dextræ
3/4
Atrium of the left auricle[3]
Atrium cordis sinistrum

---

[1] See note [1] to p. 464.

[2] *Bronchial Glands.*—These are small mucous glands in the walls of the bronchi, and must not be confounded with the *bronchial lymphatic glands.*—Tr.

[3] See note 3 to p. 411.

Fig. 788.—Roots of the Lungs, Radices Pulmonum, seen from Behind. Mutual Relations of the Pulmonary Artery, the Pulmonary Veins, the Main Bronchial Trunk, and the Primary Bronchial Branches, as they enter the Hilum of Each Lung.

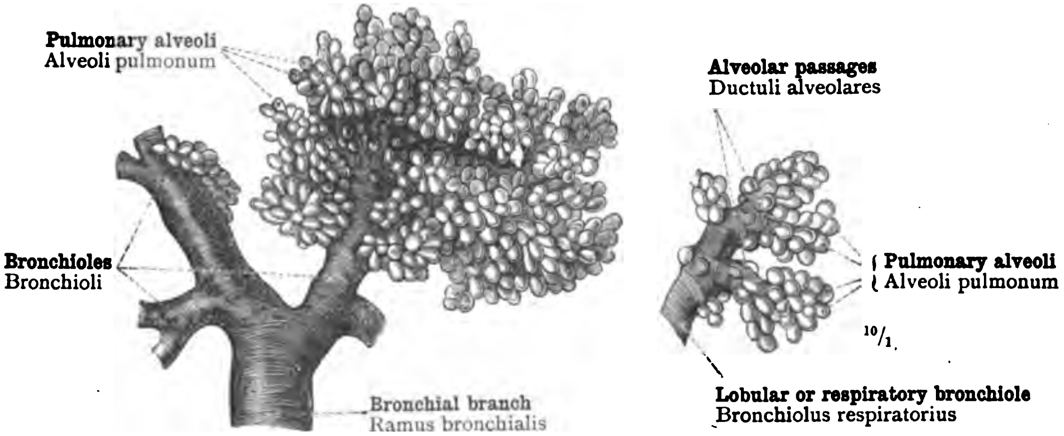


Fig. 789.—Ultimate Extremities of the Air-Passages.

After filling the bronchial ramification with resin, the lung tissue surrounding the air-passages was removed by maceration in hydrochloric acid.

Pulmo—The lung.

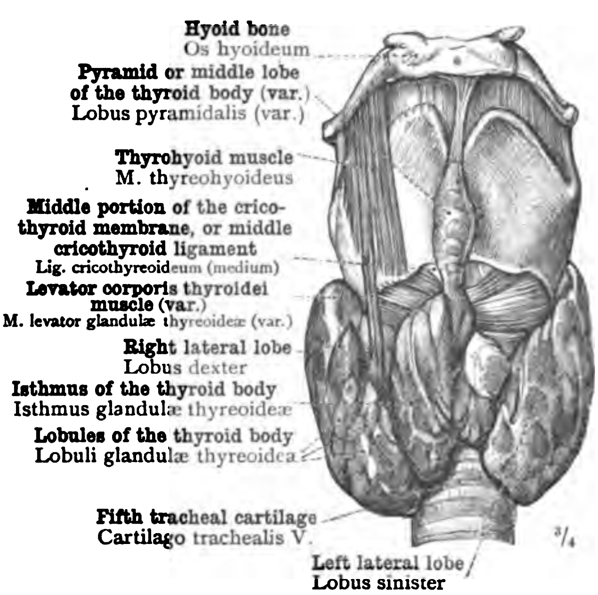

Hyoid bone
Os hyoideum
Pyramid or middle lobe of the thyroid body (var.)
Lobus pyramidalis (var.)
Thyrohyoid muscle
M. thyreohyoideus
Middle portion of the crico-thyroid membrane, or middle cricothyroid ligament
Lig. cricothyreoideum (medium)
Levator corporis thyroidei muscle (var.)
M. levator glandulæ thyreoideæ (var.)
Right lateral lobe
Lobus dexter
Isthmus of the thyroid body
Isthmus glandulæ thyreoideæ
Lobules of the thyroid body
Lobuli glandulæ thyreoideæ
Fifth tracheal cartilage
Cartilago trachealis V.
Left lateral lobe
Lobus sinister
3/4

FIG. 790.—GLANDULA THYREOIDEA, THE THYROID BODY, WITH THE LARYNX AND TRACHEA, SEEN FROM BEFORE.

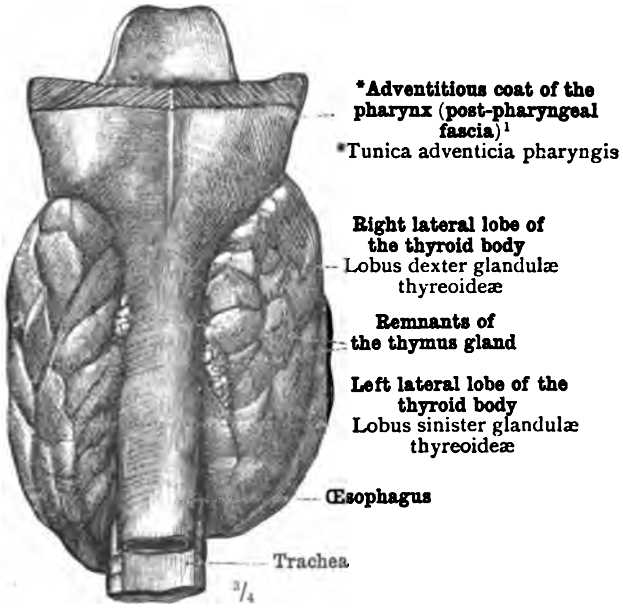

***Adventitious coat of the pharynx (post-pharyngeal fascia)**[1]
*Tunica adventicia pharyngis
Right lateral lobe of the thyroid body
Lobus dexter glandulæ thyreoideæ
Remnants of the thymus gland
Left lateral lobe of the thyroid body
Lobus sinister glandulæ thyreoideæ
Œsophagus
Trachea
3/4

FIG. 791.—THE THYROID BODY, WITH THE ŒSOPHAGUS, SEEN FROM BEHIND.

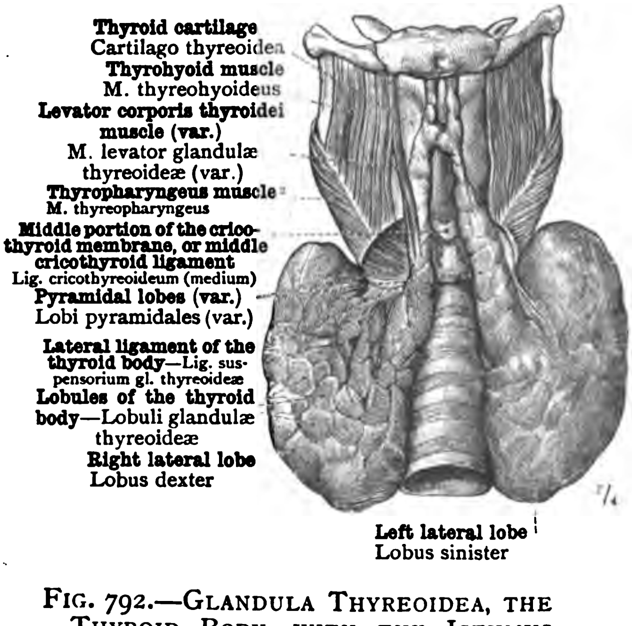

Thyroid cartilage
Cartilago thyreoidea
Thyrohyoid muscle
M. thyreohyoideus
Levator corporis thyroidei muscle (var.)
M. levator glandulæ thyreoideæ (var.)
Thyropharyngeus muscle
M. thyreopharyngeus
Middle portion of the crico-thyroid membrane, or middle cricothyroid ligament
Lig. cricothyreoideum (medium)
Pyramidal lobes (var.)
Lobi pyramidales (var.)
Lateral ligament of the thyroid body—Lig. suspensorium gl. thyreoideæ
Lobules of the thyroid body—Lobuli glandulæ thyreoideæ
Right lateral lobe
Lobus dexter
Left lateral lobe
Lobus sinister
1/1

FIG. 792.—GLANDULA THYREOIDEA, THE THYROID BODY, WITH THE ISTHMUS WANTING, AND WITH BILATERAL PYRAMIDAL LOBES (VARIETY).

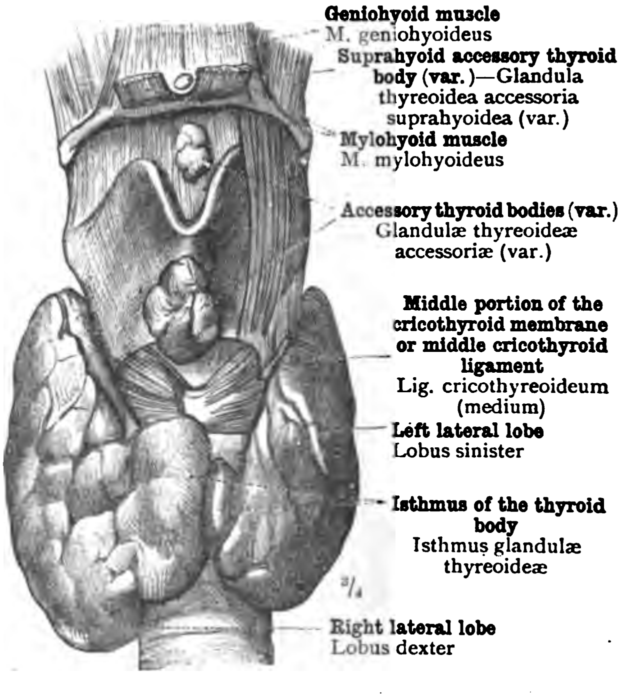

Geniohyoid muscle
M. geniohyoideus
Suprahyoid accessory thyroid body (var.)—Glandula thyreoidea accessoria suprahyoidea (var.)
Mylohyoid muscle
M. mylohyoideus
Accessory thyroid bodies (var.)
Glandulæ thyreoideæ accessoriæ (var.)
Middle portion of the cricothyroid membrane or middle cricothyroid ligament
Lig. cricothyreoideum (medium)
Left lateral lobe
Lobus sinister
Isthmus of the thyroid body
Isthmus glandulæ thyreoideæ
Right lateral lobe
Lobus dexter
3/4

FIG. 793.—THYROID BODY WITH SEVERAL ACCESSORY THYROIDS; ONE OF THE LATTER IS SITUATE ABOVE THE HYOID BONE, BEHIND THE MYLOHYOID MUSCLE.

---

[1] See Appendix, note 34

[2] See note [1] to p. 433.

Glandula thyreoidea—Thyroid body.

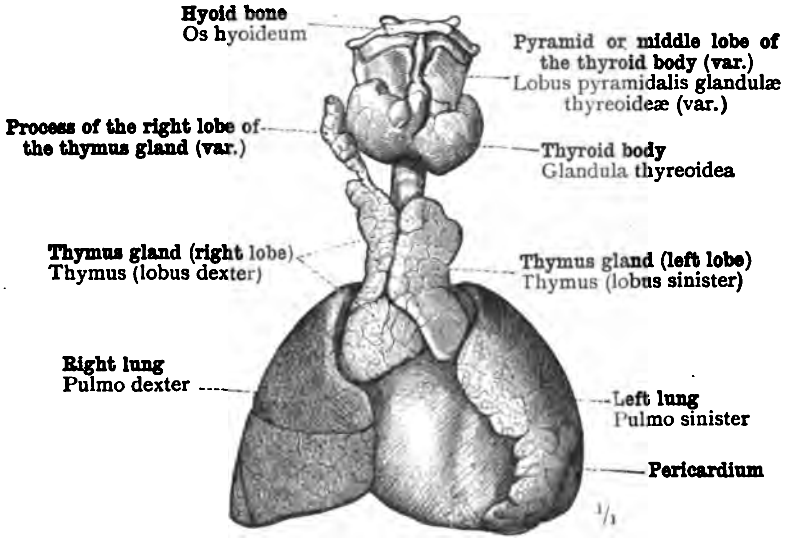
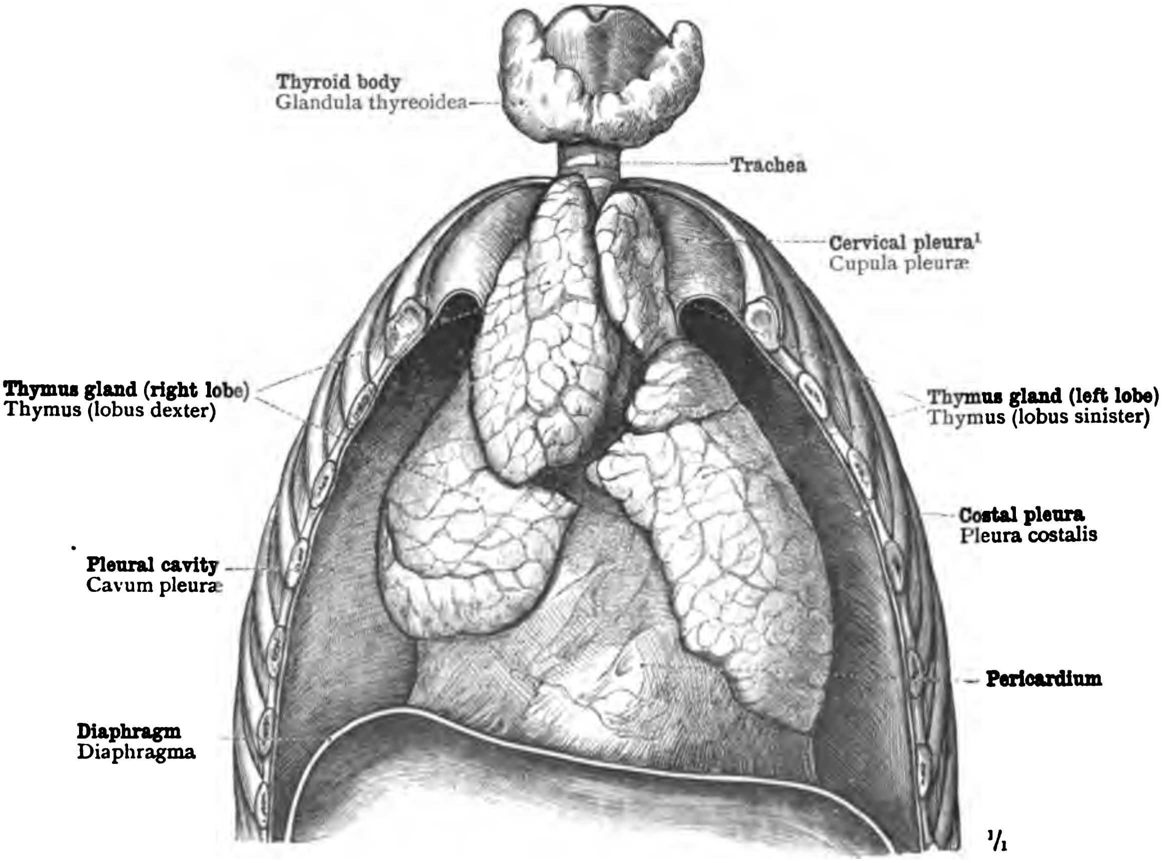


FIG. 794.—THE THYMUS GLAND, WITH THE THYROID BODY, THE PERICARDIUM, AND THE LUNGS, OF A HUMAN FŒTUS IN THE SIXTH MONTH OF INTRA-UTERINE LIFE (MONTHS OF FOUR WEEKS EACH). SEEN FROM BEFORE.



---

[1] *Cupula Pleuræ.*—This term is applied by the author to the dome-shaped summit of the pleura, but as this portion of the pleura projects through the superior aperture of the thorax into the root of the neck, it is generally known in England as the *cervical pleura.*—TR.

FIG. 795.—THE THYMUS GLAND, WITH THE PERICARDIUM, AS SEEN FROM BEFORE AFTER THE LUNGS HAVE BEEN ENTIRELY REMOVED. FROM A BOY AGED FIVE WEEKS.

The Thymus Gland.

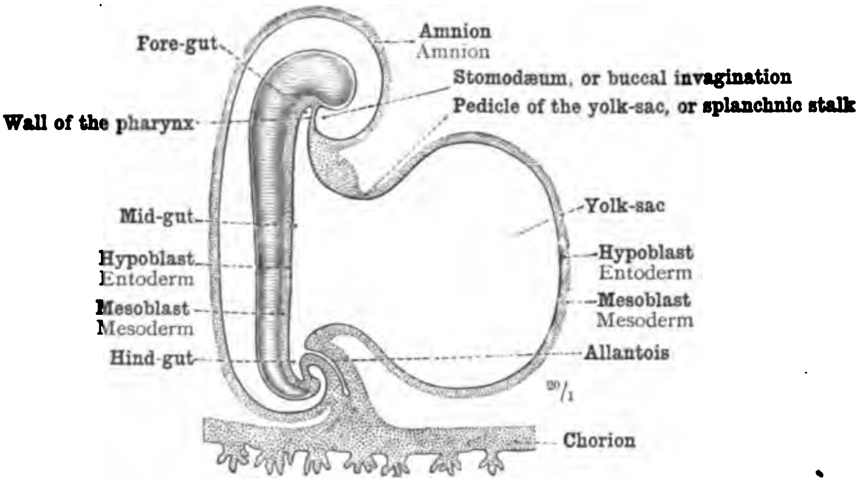


FIG. 796.—HUMAN EMBRYO IN THE BEGINNING OF THE THIRD WEEK (DIAGRAMMATIC).

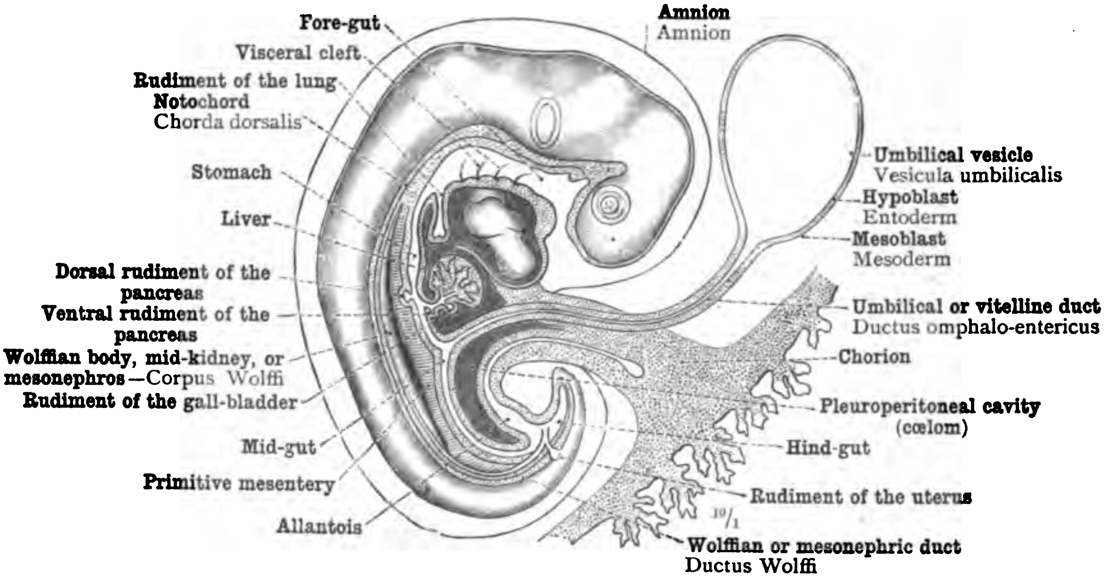


FIG. 797.—HUMAN EMBRYO IN THE BEGINNING OF THE FIFTH WEEK (DIAGRAMMATIC).

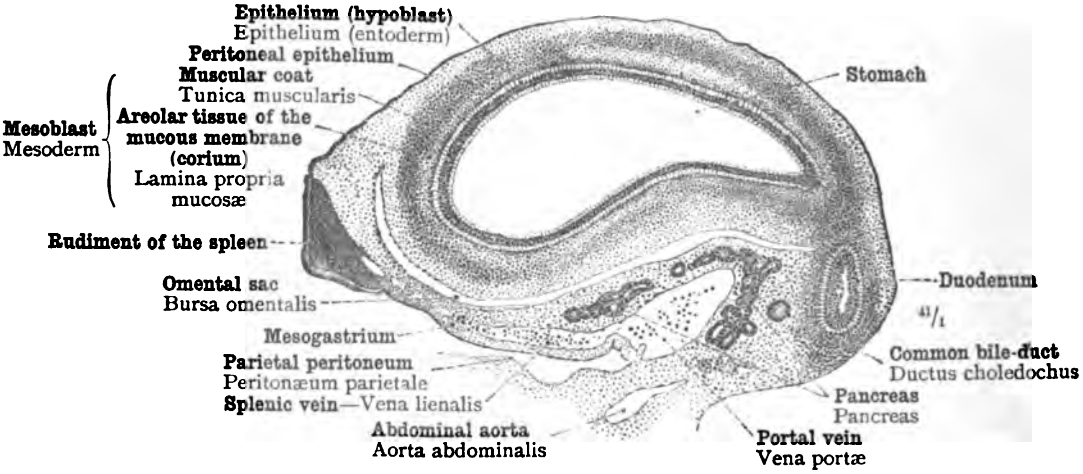


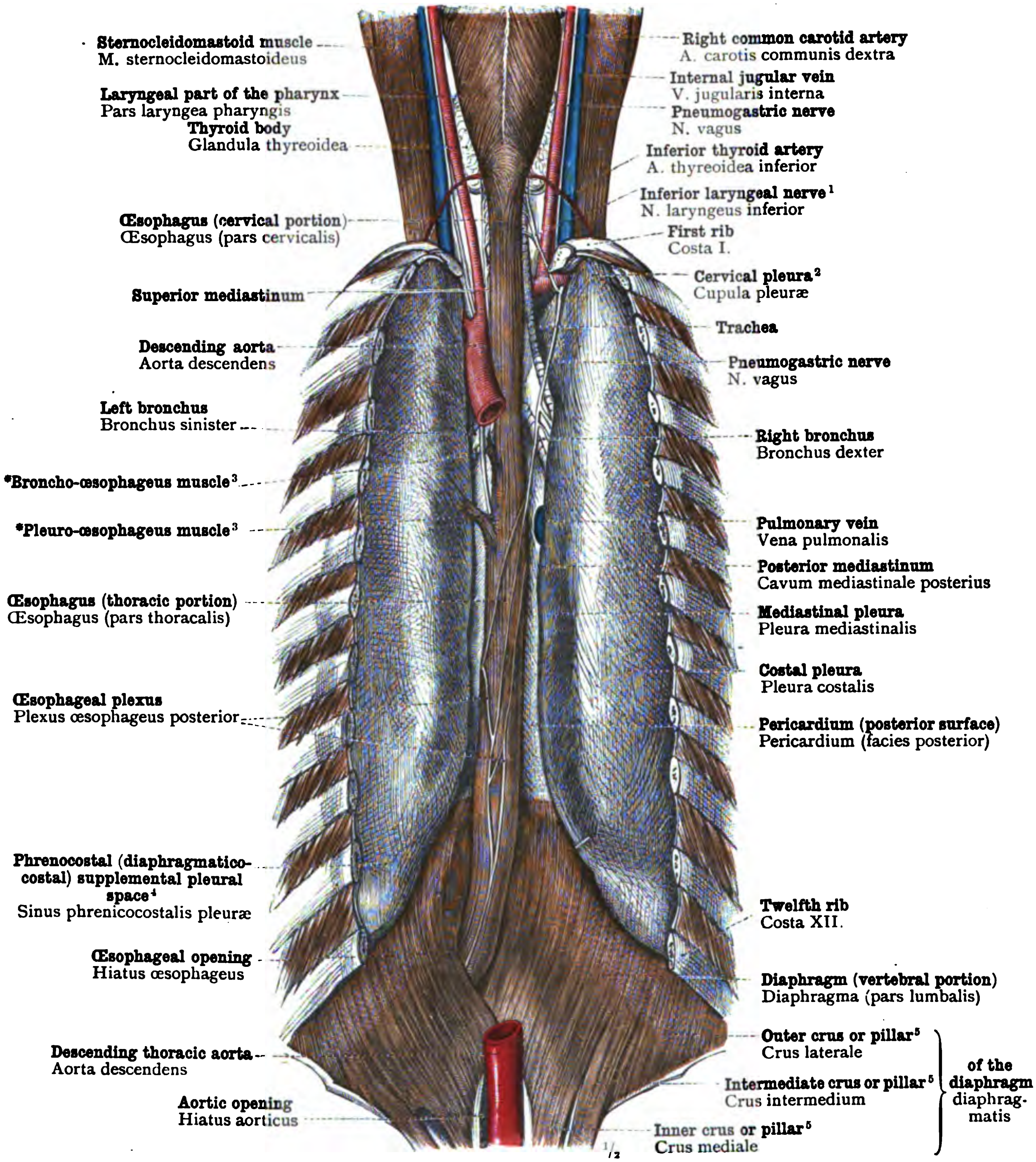
FIG. 798.—RUDIMENT OF THE SPLEEN. HUMAN EMBRYO IN THE SIXTH WEEK. TRANSVERSE SECTION.

Rudiments of the Viscera.

TOPOGRAPHICAL ANATOMY

OF THE

THORACIC AND ABDOMINAL VISCERA



[1] Known also as the *recurrent laryngeal nerve.*

[2] See note [1] to p. 467.

[3] See Appendix, note 35.

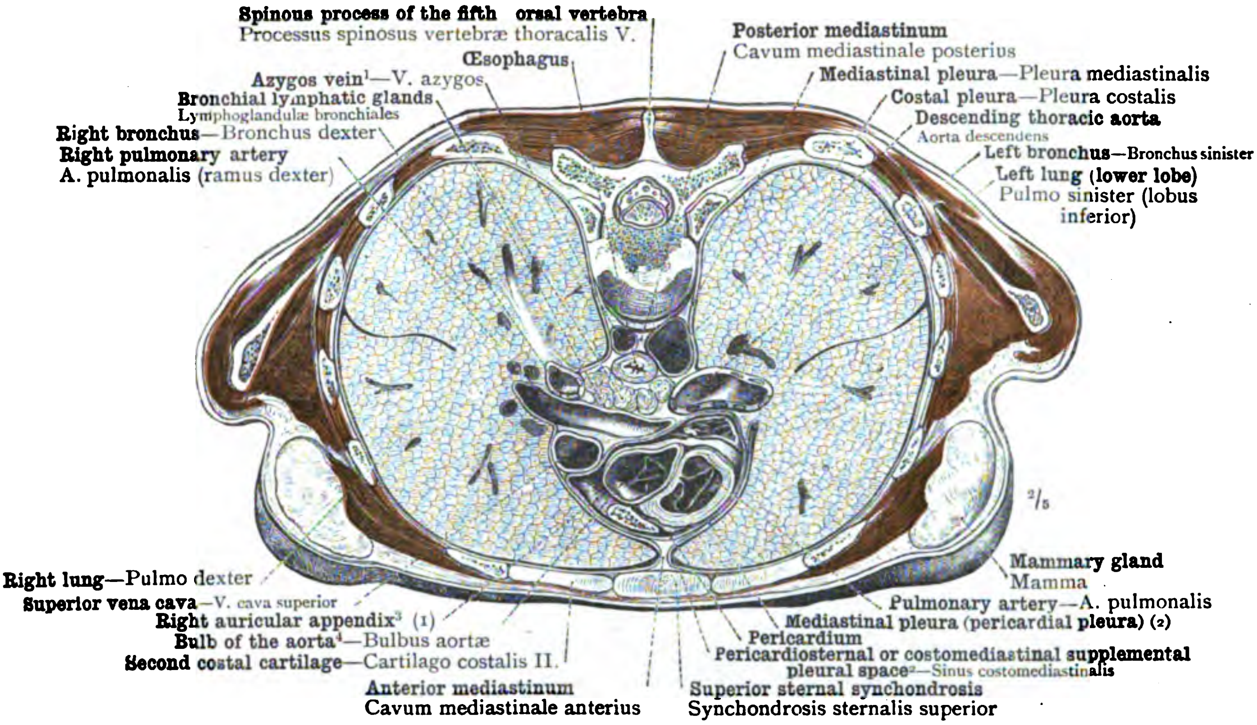
[4] See Appendix, note 36.

[5] See Appendix, note 37.

FIG. 799.—COURSE OF THE THORACIC PORTION OF THE ŒSOPHAGUS IN THE POSTERIOR MEDIASTINUM, AND ITS PASSAGE THROUGH THE ŒSOPHAGEAL OPENING IN THE DIAPHRAGM. THE ŒSOPHAGUS IS SEEN FROM BEHIND, HAVING BEEN EXPOSED BY THE REMOVAL OF THE VERTEBRAL COLUMN, THE POSTERIOR EXTREMITIES OF THE RIBS, AND THE GREATER PART OF THE DESCENDING THORACIC AORTA. BRONCHO-ŒSOPHAGEUS AND PLEURO-ŒSOPHAGEUS MUSCLES.

The pleura has been left intact.

Topographical Anatomy of the Œsophagus.


Spinous process of the fifth dorsal vertebra
Processus spinosus vertebræ thoracalis V.
Œsophagus
Azygos vein¹—V. azygos
Bronchial lymphatic glands
Lymphoglandulæ bronchiales
Right bronchus—Bronchus dexter
Right pulmonary artery
A. pulmonalis (ramus dexter)
Posterior mediastinum
Cavum mediastinale posterius
Mediastinal pleura—Pleura mediastinalis
Costal pleura—Pleura costalis
Descending thoracic aorta
Aorta descendens
Left bronchus—Bronchus sinister
Left lung (lower lobe)
Pulmo sinister (lobus inferior)
2/5
Right lung—Pulmo dexter
Superior vena cava—V. cava superior
Right auricular appendix³ (1)
Bulb of the aorta⁴—Bulbus aortæ
Second costal cartilage—Cartilago costalis II.
Anterior mediastinum
Cavum mediastinale anterius
Mammary gland
Mamma
Pulmonary artery—A. pulmonalis
Mediastinal pleura (pericardial pleura) (2)
Pericardium
Pericardiosternal or costomediastinal supplemental pleural space²—Sinus costomediastinalis
Superior sternal synchondrosis
Synchondrosis sternalis superior

(1) Auricula cordis dextra (2) Pleura mediastinalis (pleura pericardiaca)

FIG. 800.—HORIZONTAL SECTION THROUGH THE TRUNK PASSING BETWEEN THE BODIES OF THE FIFTH AND SIXTH DORSAL VERTEBRÆ.

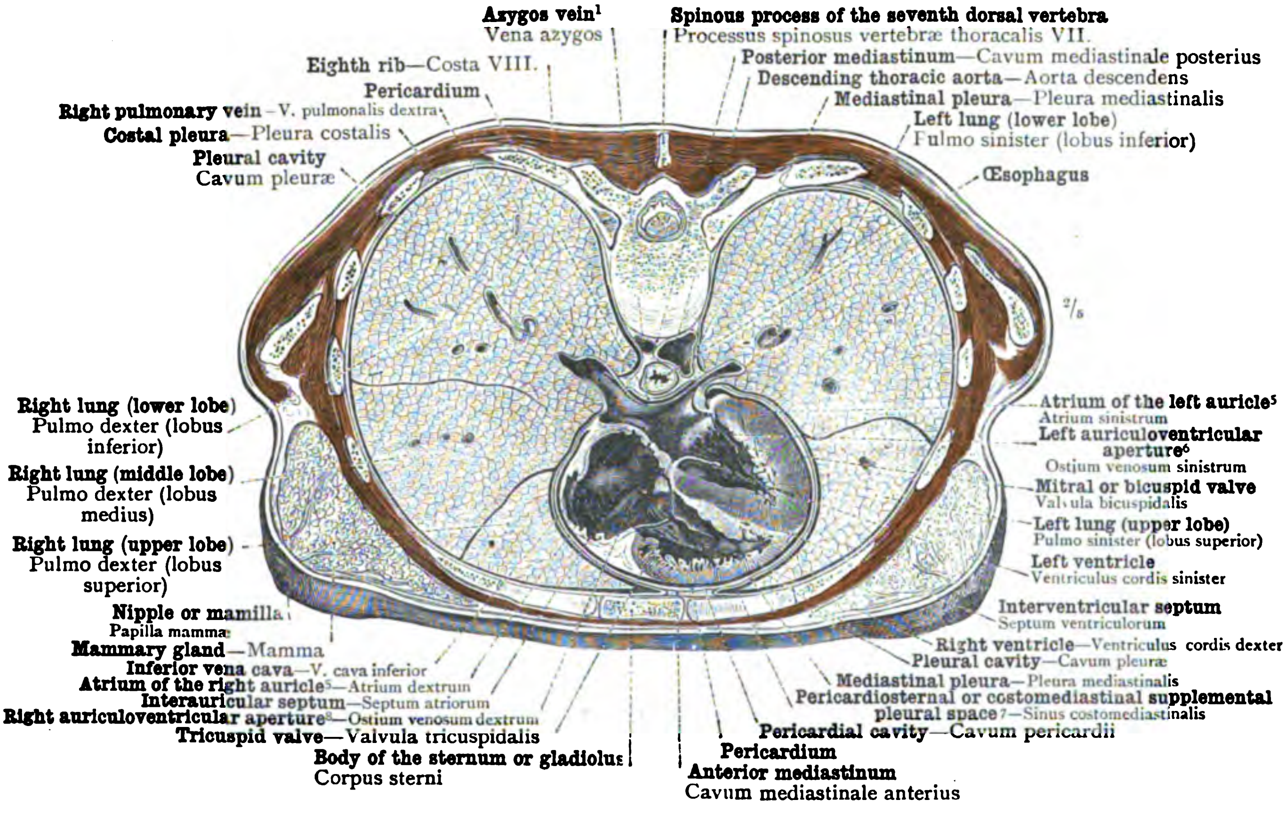
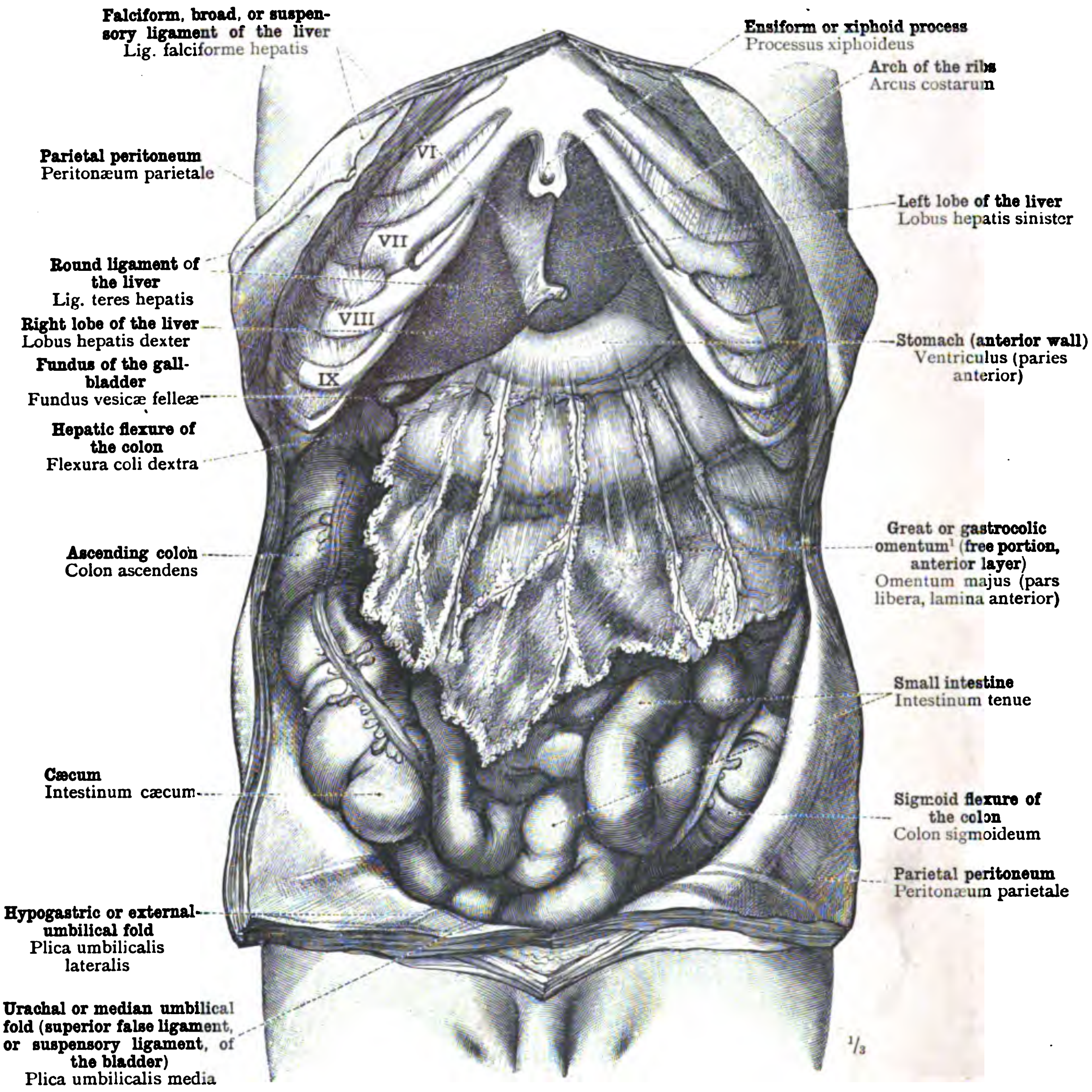

Azygos vein¹
Vena azygos
Spinous process of the seventh dorsal vertebra
Processus spinosus vertebræ thoracalis VII.
Eighth rib—Costa VIII.
Pericardium
Right pulmonary vein—V. pulmonalis dextra
Costal pleura—Pleura costalis
Pleural cavity
Cavum pleuræ
Posterior mediastinum—Cavum mediastinale posterius
Descending thoracic aorta—Aorta descendens
Mediastinal pleura—Pleura mediastinalis
Left lung (lower lobe)
Pulmo sinister (lobus inferior)
Œsophagus
2/5
Right lung (lower lobe)
Pulmo dexter (lobus inferior)
Right lung (middle lobe)
Pulmo dexter (lobus medius)
Right lung (upper lobe)
Pulmo dexter (lobus superior)
Nipple or mamilla
Papilla mammæ
Mammary gland—Mamma
Inferior vena cava—V. cava inferior
Atrium of the right auricle⁵—Atrium dextrum
Interauricular septum—Septum atriorum
Right auriculoventricular aperture⁸—Ostium venosum dextrum
Tricuspid valve—Valvula tricuspidalis
Body of the sternum or gladiolus
Corpus sterni
Atrium of the left auricle⁵
Atrium sinistrum
Left auriculoventricular aperture⁶
Ostium venosum sinistrum
Mitral or bicuspid valve
Valvula bicuspidalis
Left lung (upper lobe)
Pulmo sinister (lobus superior)
Left ventricle
Ventriculus cordis sinister
Interventricular septum
Septum ventriculorum
Right ventricle—Ventriculus cordis dexter
Pleural cavity—Cavum pleuræ
Mediastinal pleura—Pleura mediastinalis
Pericardiosternal or costomediastinal supplemental pleural space⁷—Sinus costomediastinalis
Pericardial cavity—Cavum pericardii
Pericardium
Anterior mediastinum
Cavum mediastinale anterius

FIG. 801.—HORIZONTAL SECTION THROUGH THE TRUNK PASSING BETWEEN THE BODIES OF THE SEVENTH AND EIGHTH DORSAL VERTEBRÆ.

---

[1] Sometimes called the *right* or *large azygos vein.* [2] See Appendix, note 36. [3] See note 3 to p. 411. [4] See Appendix, note 38. [5] See note 3 to p. 411. [6] Or *mitral orifice.* [7] See Appendix, note 36. [8] Or *tricuspid orifice.*

Topographical Anatomy of the Thoracic Organs.


Falciform, broad, or suspensory ligament of the liver
Lig. falciforme hepatis
Parietal peritoneum
Peritonæum parietale
Round ligament of the liver
Lig. teres hepatis
Right lobe of the liver
Lobus hepatis dexter
Fundus of the gall-bladder
Fundus vesicæ felleæ
Hepatic flexure of the colon
Flexura coli dextra
Ascending colon
Colon ascendens
Cæcum
Intestinum cæcum
Hypogastric or external umbilical fold
Plica umbilicalis lateralis
Urachal or median umbilical fold (superior false ligament, or suspensory ligament, of the bladder)
Plica umbilicalis media
Ensiform or xiphoid process
Processus xiphoideus
Arch of the ribs
Arcus costarum
Left lobe of the liver
Lobus hepatis sinister
Stomach (anterior wall)
Ventriculus (paries anterior)
Great or gastrocolic omentum[1] (free portion, anterior layer)
Omentum majus (pars libera, lamina anterior)
Small intestine
Intestinum tenue
Sigmoid flexure of the colon
Colon sigmoideum
Parietal peritoneum
Peritonæum parietale
VI
VII
VIII
IX
1/3

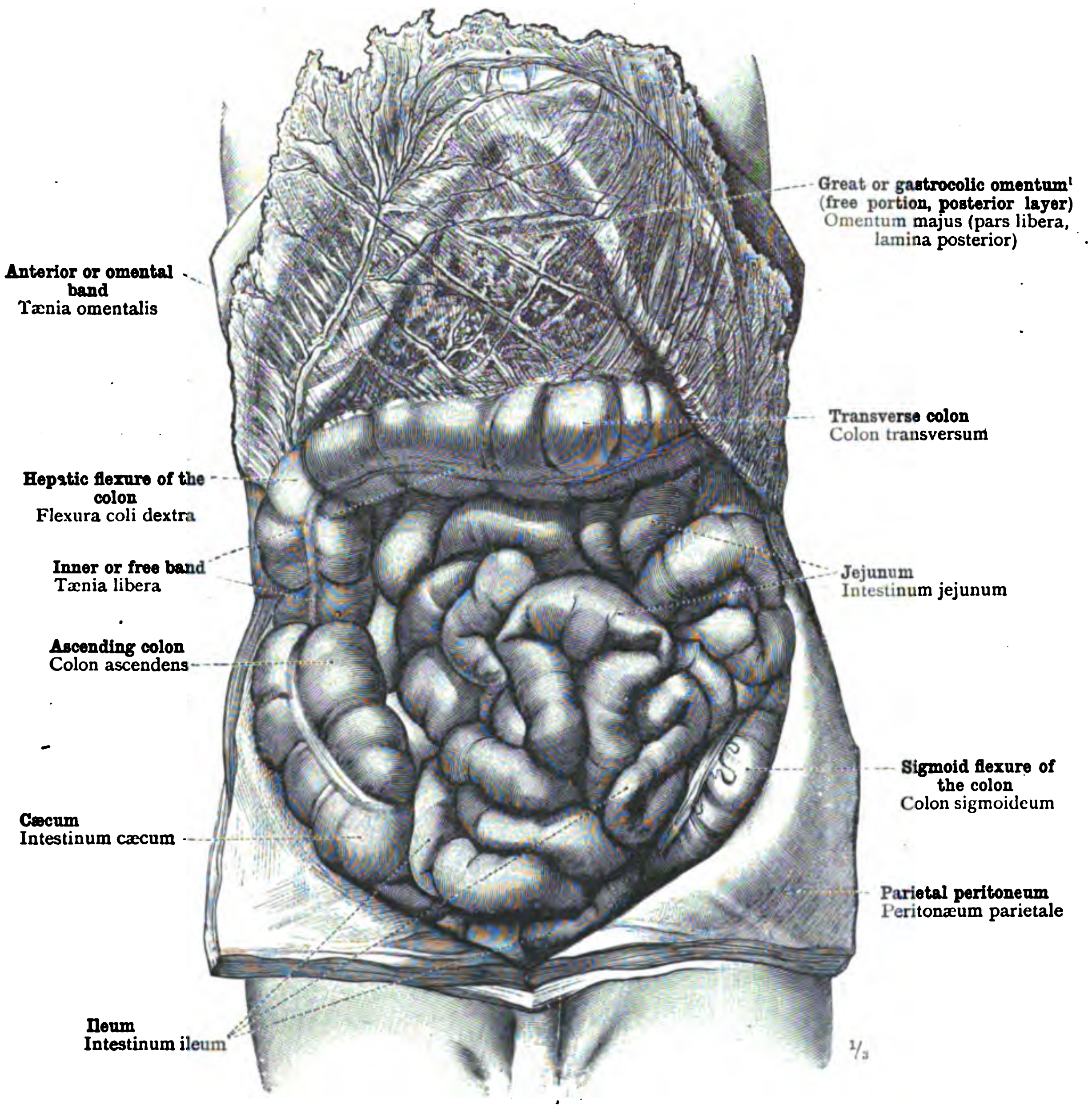
---

[1] Or *epiploon.* See note [2] to p. 456.

FIG. 802.—POSITION OF THE ABDOMINAL VISCERA AS SEEN AFTER THE ABDOMINAL CAVITY HAS BEEN OPENED IN THE USUAL MANNER AND THE COSTAL ARCHES HAVE BEEN LAID BARE.

The visible portions of the large intestine (colon) are moderately distended with gas ; the great or gastrocolic omentum (omentum majus) is in its natural position.

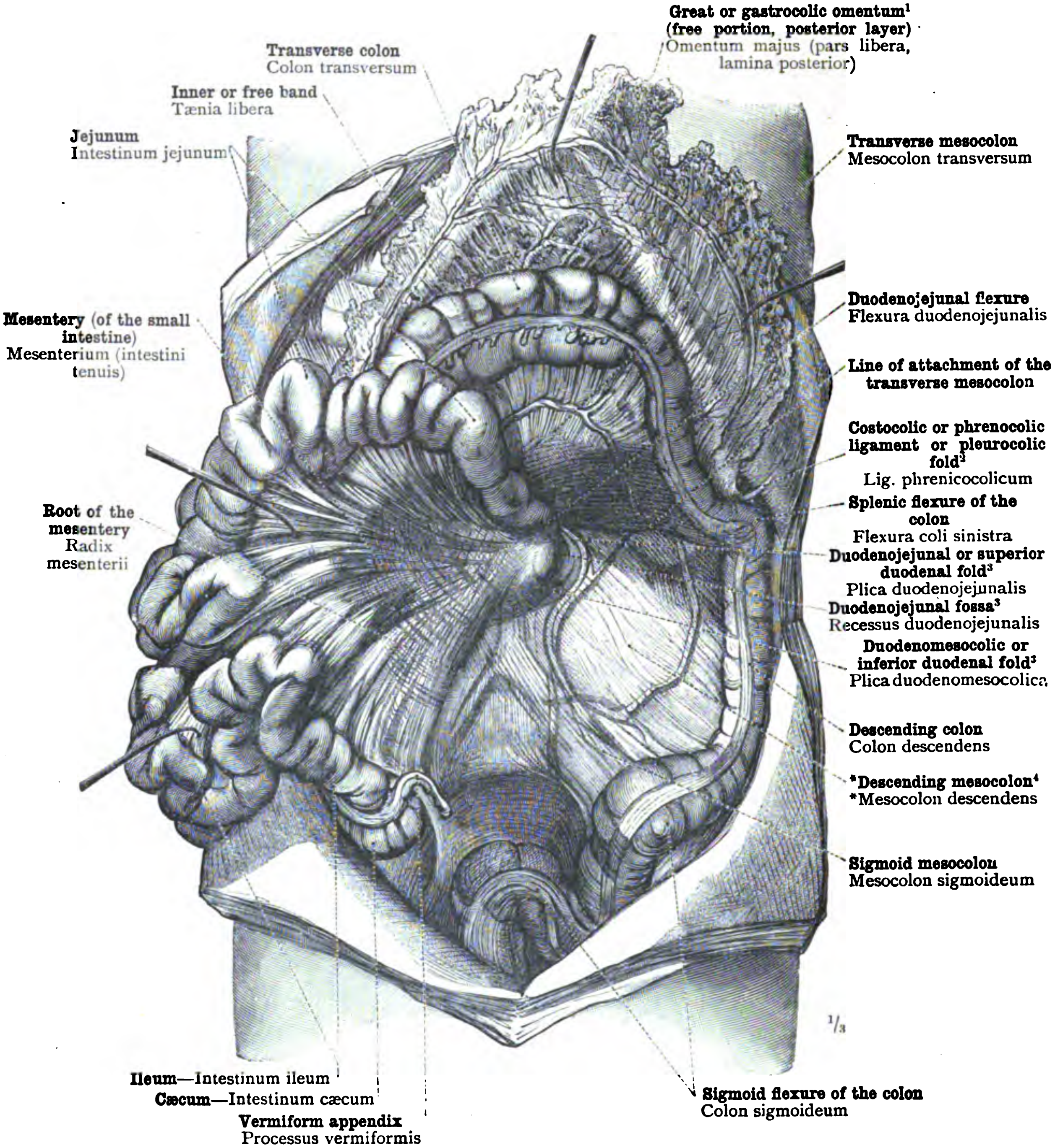
Topographical Anatomy of the Abdominal Viscera.



---

[1] Or *epiploon.* See note [2] to p. 456.

FIG. 803.—POSITION OF THE VISCERA IN THE LOWER PORTION OF THE ABDOMINAL CAVITY, AFTER THE GREAT OR GASTROCOLIC OMENTUM HAS BEEN TURNED UPWARDS. RELATION OF THE GREAT OMENTUM TO THE TRANSVERSE COLON (COLON TRANSVERSUM); POSITION OF THE CÆCUM (INTESTINUM CÆCUM) AND OF THE ASCENDING COLON (COLON ASCENDENS) IN RELATION TO THE LOOPS OF THE FREE PORTIONS OF THE SMALL INTESTINE (INTESTINUM TENUE): JEJUNUM (INTESTINUM JEJUNUM) AND ILEUM (INTESTINUM ILEUM).


Great or gastrocolic omentum[1] **(free portion, posterior layer)**
Omentum majus (pars libera, lamina posterior)
Transverse colon
Colon transversum
Inner or free band
Tænia libera
Jejunum
Intestinum jejunum
Transverse mesocolon
Mesocolon transversum
Duodenojejunal flexure
Flexura duodenojejunalis
Mesentery (of the small **intestine**)
Mesenterium (intestini tenuis)
Line of attachment of the transverse mesocolon
Costocolic or phrenocolic ligament or pleurocolic fold[2]
Lig. phrenicocolicum
Root of the mesentery
Radix mesenterii
Splenic flexure of the colon
Flexura coli sinistra
Duodenojejunal or superior duodenal fold[3]
Plica duodenojejunalis
Duodenojejunal fossa[3]
Recessus duodenojejunalis
Duodenomesocolic or inferior duodenal fold[3]
Plica duodenomesocolica
Descending colon
Colon descendens
***Descending mesocolon**[4]
*Mesocolon descendens
Sigmoid mesocolon
Mesocolon sigmoideum
1/3
Ileum—Intestinum ileum
Cæcum—Intestinum cæcum
Vermiform appendix
Processus vermiformis
Sigmoid flexure of the colon
Colon sigmoideum

---

[1] Or *epiploon.* See note [2] to p. 456.

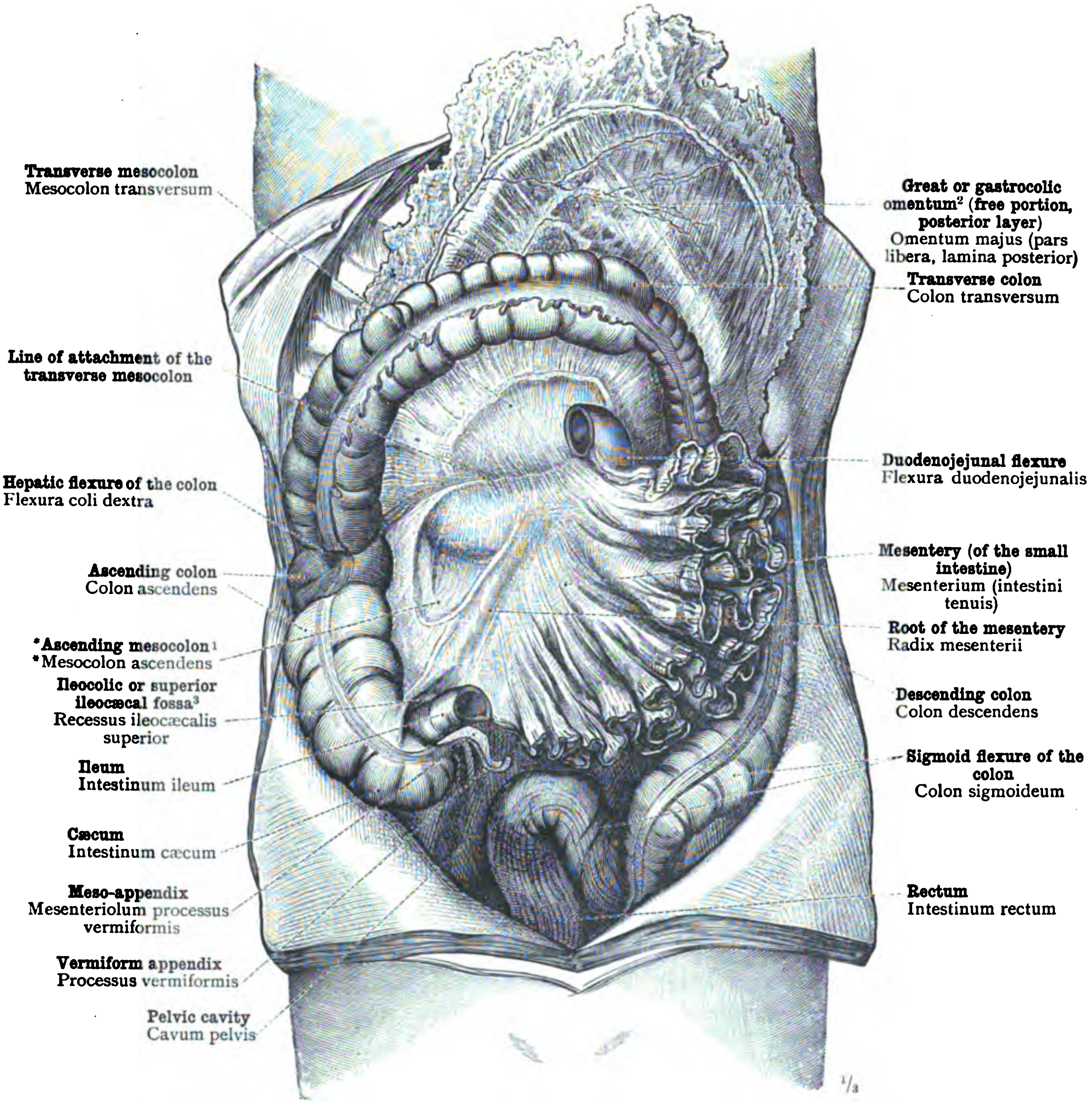
[2] Known also as *sustentaculum lienis.* See Appendix, note [41].

[3] See Fig. 757 on p. 454 and Appendix, note [30].

[4] See note [1] to p. 453.

Fig. 804.—The Free Portions of the Small Intestine (Intestinum Tenue), the Jejunum (Intestinum Jejunum), and the Ileum (Intestinum Ileum), have been turned as far as possible to the Right, and the Transverse Colon (Colon Transversum) has been drawn upwards, to show the Transition of the Latter into the Descending Colon (Colon Descendens), and of the Descending Colon into the Sigmoid Flexure of the Colon (Colon Sigmoideum). The Mesentery and its Root (Mesenterium et Radix Mesenterii) are seen from the Left Side. Of the Mesentery of the Large Intestine, or Mesocolon, the Left Half of the Transverse Mesocolon with its Line of Attachment, the *Descending Mesocolon (*see note* [4] *above*), and the Sigmoid Mesocolon are visible. Recessus Duodenojejunalis, Duodenojejunal Fossa (*see note* [3] *above*).

Topographical Anatomy of the Abdominal Viscera.


Transverse mesocolon
Mesocolon transversum
Line of attachment of the transverse mesocolon
Hepatic flexure of the colon
Flexura coli dextra
Ascending colon
Colon ascendens
***Ascending mesocolon**[1]
*Mesocolon ascendens
Ileocolic or superior ileocæcal fossa[3]
Recessus ileocæcalis superior
Ileum
Intestinum ileum
Cæcum
Intestinum cæcum
Meso-appendix
Mesenteriolum processus vermiformis
Vermiform appendix
Processus vermiformis
Pelvic cavity
Cavum pelvis
Great or gastrocolic omentum[2] **(free portion, posterior layer)**
Omentum majus (pars libera, lamina posterior)
Transverse colon
Colon transversum
Duodenojejunal flexure
Flexura duodenojejunalis
Mesentery (of the small intestine)
Mesenterium (intestini tenuis)
Root of the mesentery
Radix mesenterii
Descending colon
Colon descendens
Sigmoid flexure of the colon
Colon sigmoideum
Rectum
Intestinum rectum
1/3

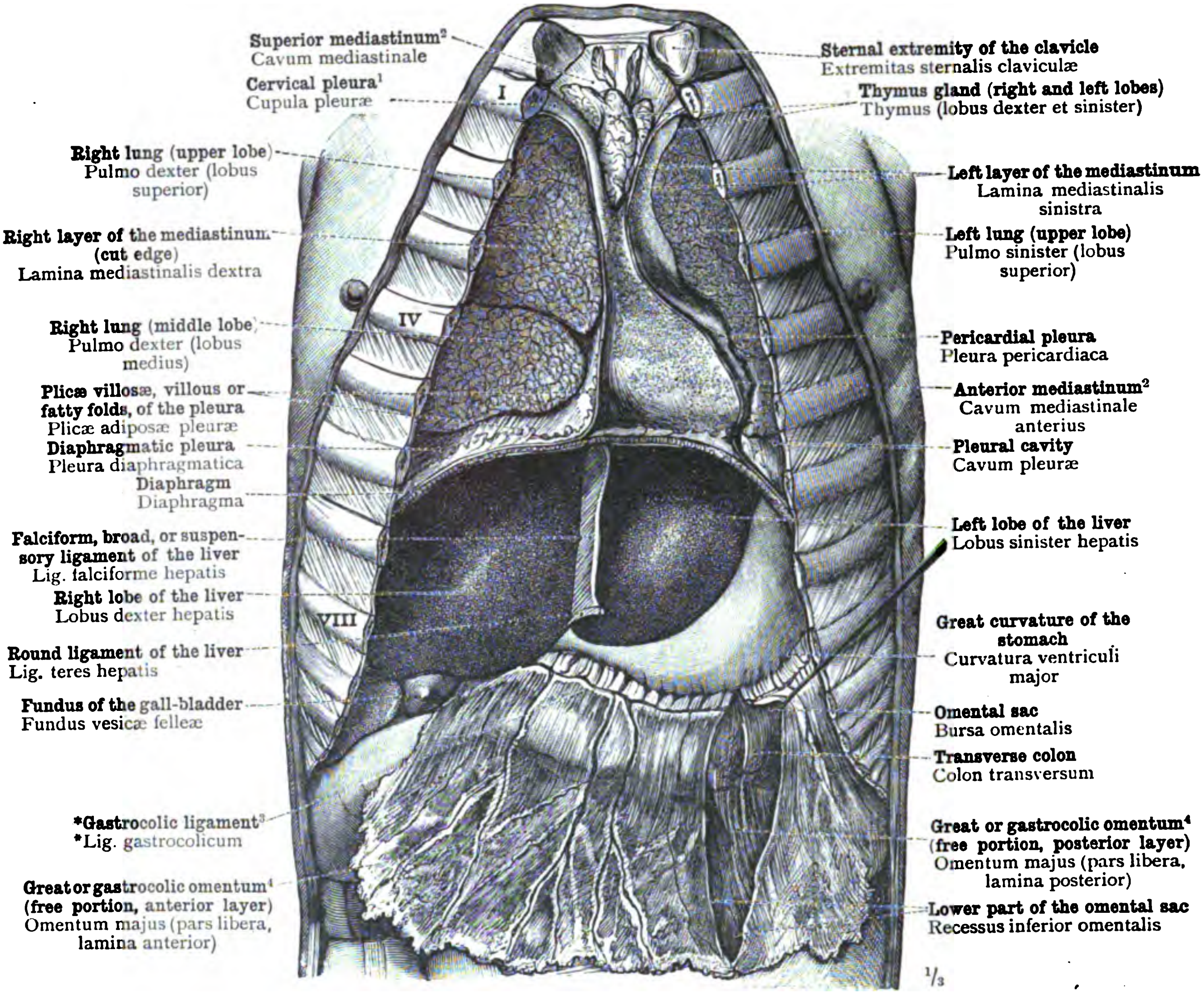
[1] See Appendix, note 39.

[2] Or *epiploon*. See note [2] to p. 456.

[3] See Appendix, note 23.

Fig. 805.—The Freely-movable Portion of the Small Intestine has, with the Exception of the Commencement of the Jejunum and the Termination of the Ileum, been cut away from the Mesentery, and this Latter has been turned to the Left. The Mesentery and its Root (Mesenterium et Radix Mesenterii) are seen from the Right Side. Of the Mesentery of the Large Intestine, or Mesocolon, the Right Portion of the Transverse Mesocolon with its Line of Attachment, and the *Ascending Mesocolon (*see Appendix, note* [39]) are visible. Recessus Ileocæcalis Superior, Ileocolic or Superior Ileocæcal Fossa (*see Appendix, note* [23]). Intestinum Cæcum, the Cæcum; Colon Ascendens, the Ascending Colon; Colon Transversum, the Transverse Colon; Colon Sigmoideum, the Sigmoid Flexure of the Colon, and its Transition into the Rectum (Intestinum Rectum).

Topographical Anatomy of the Abdominal Viscera.


Superior mediastinum[2]
Cavum mediastinale
Cervical pleura[1]
Cupula pleuræ
I
Right lung (upper lobe)
Pulmo dexter (lobus superior)
Right layer of the mediastinum (cut edge)
Lamina mediastinalis dextra
IV
Right lung (middle lobe)
Pulmo dexter (lobus medius)
Plicæ villosæ, villous or fatty folds, of the pleura
Plicæ adiposæ pleuræ
Diaphragmatic pleura
Pleura diaphragmatica
Diaphragm
Diaphragma
Falciform, broad, or suspensory ligament of the liver
Lig. falciforme hepatis
Right lobe of the liver
Lobus dexter hepatis
VIII
Round ligament of the liver
Lig. teres hepatis
Fundus of the gall-bladder
Fundus vesicæ felleæ
*Gastrocolic ligament[3]
*Lig. gastrocolicum
Great or gastrocolic omentum[4] (free portion, anterior layer)
Omentum majus (pars libera, lamina anterior)
Sternal extremity of the clavicle
Extremitas sternalis claviculæ
Thymus gland (right and left lobes)
Thymus (lobus dexter et sinister)
Left layer of the mediastinum
Lamina mediastinalis sinistra
Left lung (upper lobe)
Pulmo sinister (lobus superior)
Pericardial pleura
Pleura pericardiaca
Anterior mediastinum[2]
Cavum mediastinale anterius
Pleural cavity
Cavum pleuræ
Left lobe of the liver
Lobus sinister hepatis
Great curvature of the stomach
Curvatura ventriculi major
Omental sac
Bursa omentalis
Transverse colon
Colon transversum
Great or gastrocolic omentum[4] (free portion, posterior layer)
Omentum majus (pars libera, lamina posterior)
Lower part of the omental sac
Recessus inferior omentalis
1/3

[1] See note [1] to p. 467. [2] See note [2] to p. 410 and Appendix, note 24. [3] See Appendix, note 40. [4] Or *epiploon*. See note [2] to p. 456.

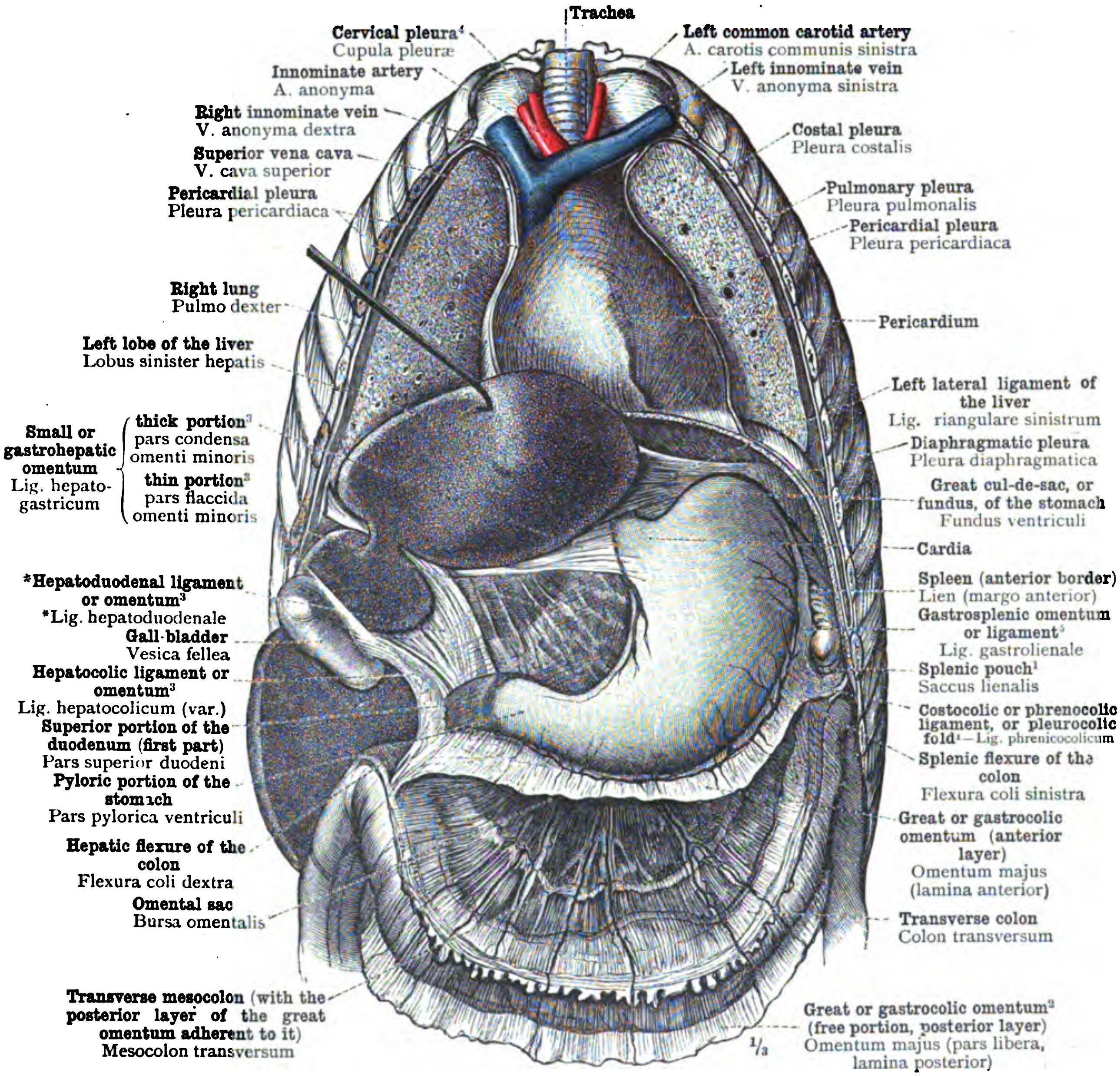
Fig. 806.—Position of the Viscera in the Thoracic Cavity and the Upper Portion of the Abdominal Cavity, as seen after the Removal of the Anterior Walls of the Thorax and Abdomen.

The sternum, the costal cartilages, and the anterior extremities of the bodies or shafts of the ribs, have been removed.

Cavum Mediastinale Anterius, the Anterior Mediastinum—Anterior and Superior Mediastina of English Anatomists (*see note* [2] *above*)—with the Remains of the Thymus Gland and the Anterior Wall of the Pericardium. Laminæ Mediastinales, the Two Layers of the Mediastinum. The Anterior Border and a Portion of the Outer or Costal Surface of Both Lungs. Position of the Stomach in Relation to the Liver and the Transverse Colon. Great or Gastrocolic Omentum (Omentum Majus) seen from Before.

The anterior layer of the great omentum, attached above to the great curvature of the stomach, has been divided by a vertical incision to the left of the middle line, and the margins of the incision have been drawn a little apart, in order to show the interior of the lower part of the omental sac (recessus inferior omentalis). Through the aperture thus made, a small portion of the transverse colon, and the posterior layer of the great omentum, are visible.

Topographical Anatomy of the Thoracic Organs and of the Viscera in the Upper Part of the Abdominal Cavity.


Trachea
Cervical pleura[4]
Cupula pleuræ
Left common carotid artery
A. carotis communis sinistra
Innominate artery
A. anonyma
Left innominate vein
V. anonyma sinistra
Right innominate vein
V. anonyma dextra
Costal pleura
Pleura costalis
Superior vena cava
V. cava superior
Pericardial pleura
Pleura pericardiaca
Pulmonary pleura
Pleura pulmonalis
Pericardial pleura
Pleura pericardiaca
Right lung
Pulmo dexter
Pericardium
Left lobe of the liver
Lobus sinister hepatis
Left lateral ligament of the liver
Lig. riangulare sinistrum
Small or gastrohepatic omentum
Lig. hepato-gastricum
thick portion[3]
pars condensa omenti minoris
thin portion[3]
pars flaccida omenti minoris
Diaphragmatic pleura
Pleura diaphragmatica
Great cul-de-sac, or fundus, of the stomach
Fundus ventriculi
Cardia
*Hepatoduodenal ligament or omentum[3]
*Lig. hepatoduodenale
Spleen (anterior border)
Lien (margo anterior)
Gall-bladder
Vesica fellea
Gastrosplenic omentum or ligament[3]
Lig. gastrolienale
Hepatocolic ligament or omentum[3]
Lig. hepatocolicum (var.)
Splenic pouch[1]
Saccus lienalis
Superior portion of the duodenum (first part)
Pars superior duodeni
Costocolic or phrenocolic ligament, or pleurocolic fold[1]—Lig. phrenicocolicum
Pyloric portion of the stomach
Pars pylorica ventriculi
Splenic flexure of the colon
Flexura coli sinistra
Great or gastrocolic omentum (anterior layer)
Omentum majus (lamina anterior)
Hepatic flexure of the colon
Flexura coli dextra
Omental sac
Bursa omentalis
Transverse colon
Colon transversum
Transverse mesocolon (with the posterior layer of the great omentum adherent to it)
Mesocolon transversum
Great or gastrocolic omentum[5] (free portion, posterior layer)
Omentum majus (pars libera, lamina posterior)
1/3

[1] See Appendix, note 41.

[2] Or *epiploon*. See note [2] to p. 456.

[3] See Appendix, note 42.

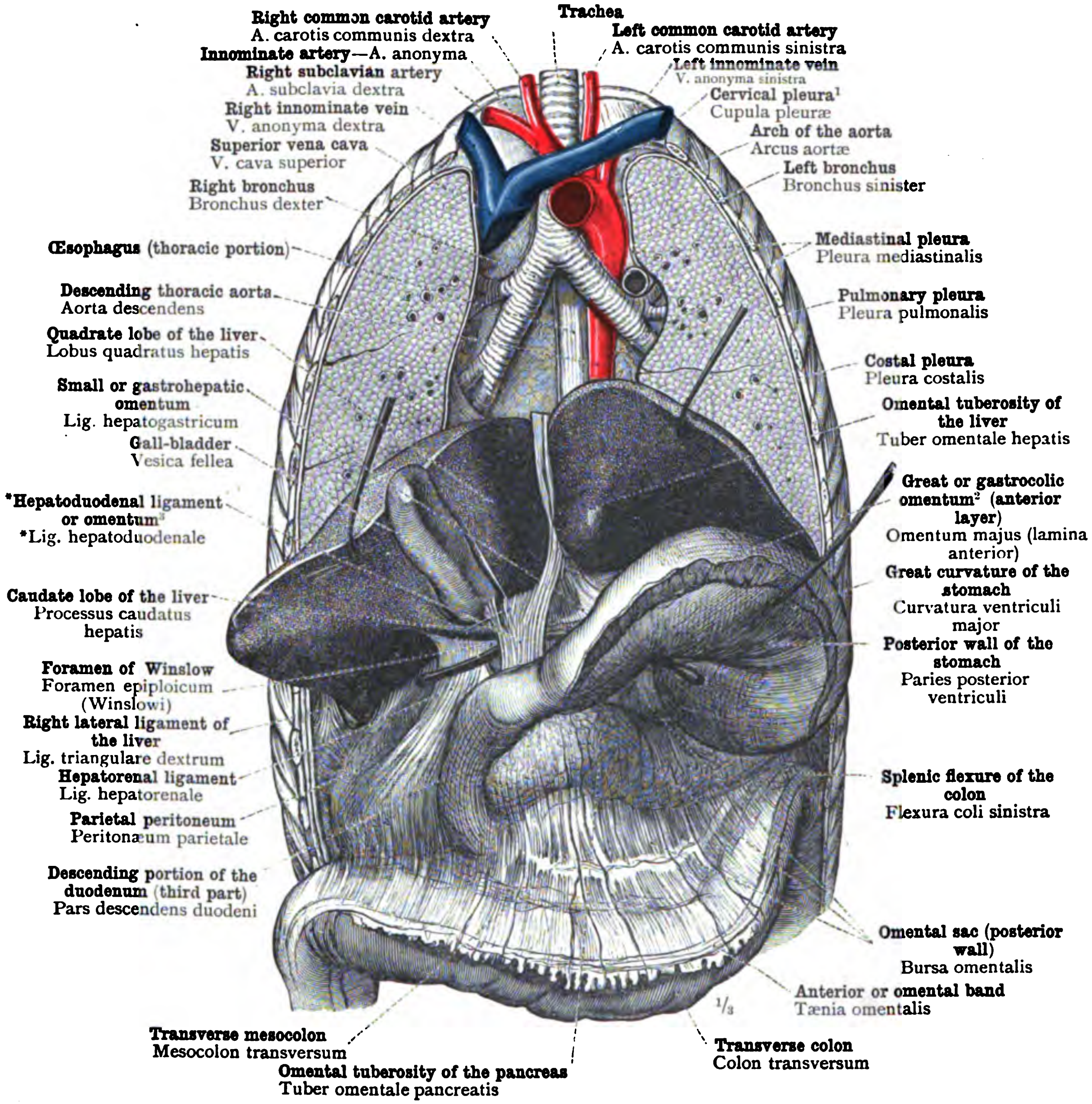
[4] See note [1] to p. 467.

[5] This is connected below with the great omentum, and is often regarded as a part of it.—Tr.

Fig. 807.—The Thoracic Organs and the Viscera in the Upper Part of the Abdominal Cavity as seen after the Removal of the Whole of the Anterior Wall of the Thorax and Abdomen.

By means of a coronal section, the anterior portions of both lungs and of the two layers of the mediastinum have been removed, so that the greater part of the anterior surface of the pericardium is exposed to view. The various parts of the diaphragm and the pleura are seen in section. The liver has been drawn as far as possible to the right, in order to show the stomach in its natural position, and the small omentum, consisting of three portions (*see Appendix, note* [42]); the Spigelian lobe of the liver (*lobus caudatus* according to Toldt—*see Appendix, note* [16]) is visible through the thin portion of the small omentum. By the removal of the greater part of the anterior layer of the great or gastrocolic omentum, the posterior wall of the lower part of the omental sac has been exposed; this posterior wall is constituted by the posterior layer of the great omentum, and in part by the transverse mesocolon, adherent thereto.

Topographical Anatomy of the Thoracic Organs and of the Viscera in the Upper Part of the Abdominal Cavity.



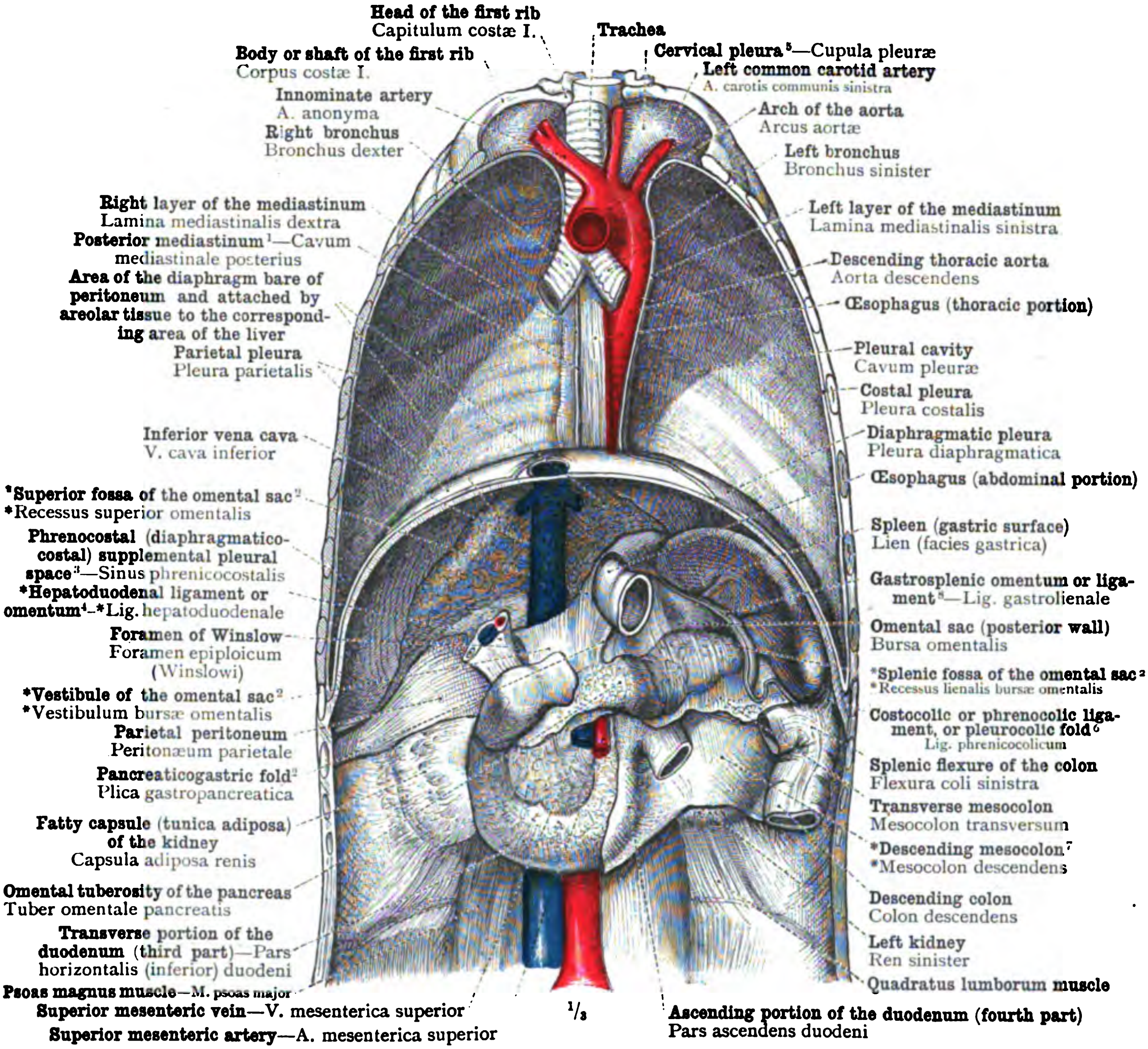
[1] See note [1] to p. 467.
[2] Or *epiploon*. See note [2] to p. 456.
[3] See Appendix, note [42].
[4] See Appendix, note [16].
[5] See note [2] to p. 410 and Appendix, note [24].

Fig. 808.—The Thoracic and Abdominal Walls have been removed as far back as the Axillary Line (*see Fig.* 818, *p.* 488). The Anterior Portions of Both Lungs have been removed in Front of the Hilum, and the Pericardial Sac and the Heart have been taken away, so that the Hinder Part of the Middle and Superior Mediastina and the Posterior Mediastinum (*see note* [5] *above*) are seen from the Front, and the Bronchial Ramification, the Œsophagus, and the Descending Thoracic Aorta, are partially displayed.

The Free Portion of the Great or Gastrocolic Omentum having been cut away by Incisions passing along its Attachments to the Great Curvature of the Stomach and to the Transverse Colon, the Liver and the Stomach were drawn upwards as far as possible, in order to show the Entrance to the Omental Sac by Means of the Foramen of Winslow (Foramen Epiploicum Winslowi), and the Interior of the Omental Sac (Bursa Omentalis), the Posterior Wall of which is to a Large Extent laid bare; in this Area, and covered by the Posterior Layer of the Great Omentum, the Pancreas is visible.

A sound has been passed through the foramen of Winslow into the omental sac.

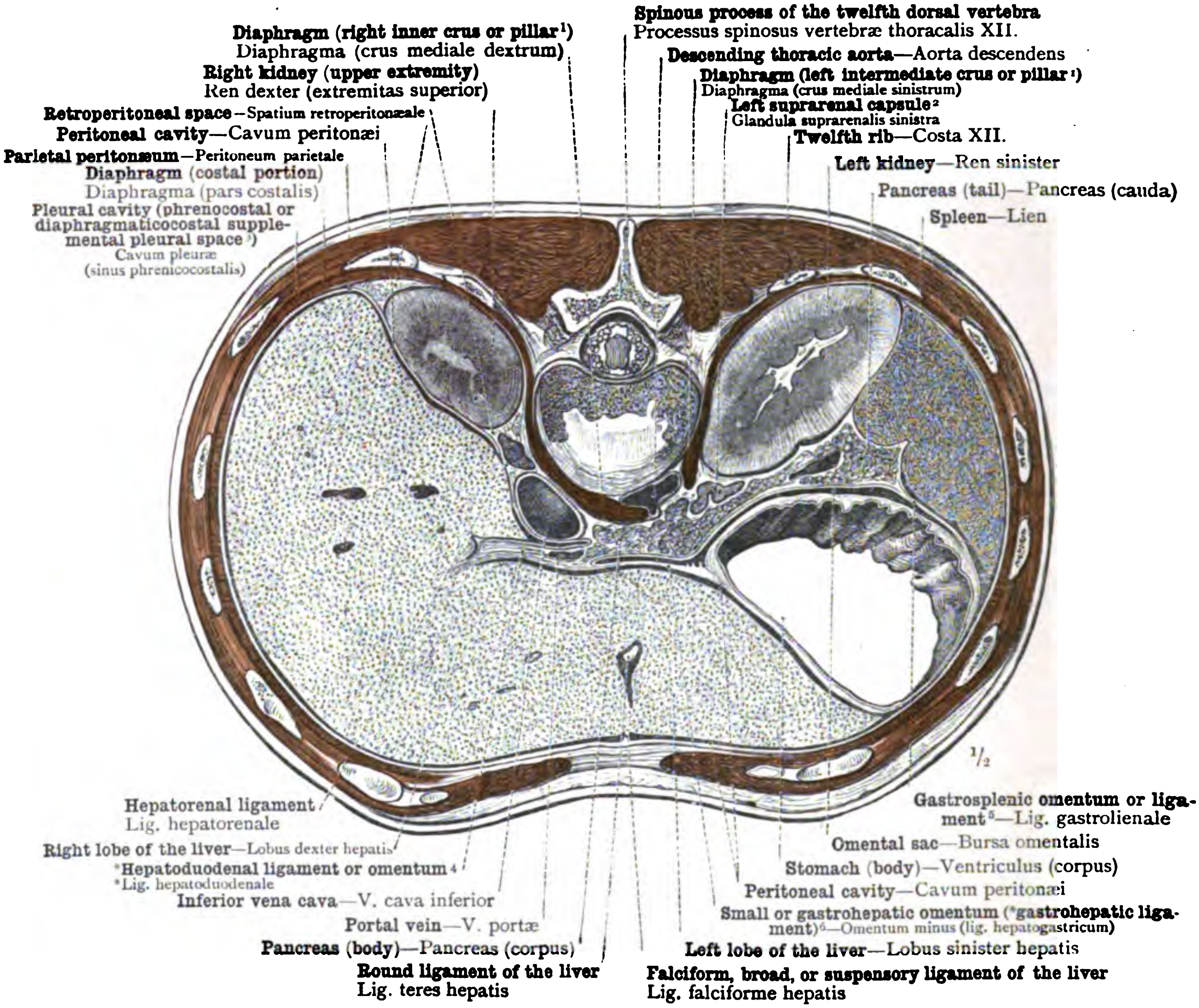
Topographical Anatomy of the Thoracic Organs and of the Viscera in the Upper Part of the Abdominal Cavity.


Head of the first rib
Capitulum costæ I.
Trachea
Body or shaft of the first rib
Corpus costæ I.
Cervical pleura[5]—Cupula pleuræ
Left common carotid artery
A. carotis communis sinistra
Innominate artery
A. anonyma
Arch of the aorta
Arcus aortæ
Right bronchus
Bronchus dexter
Left bronchus
Bronchus sinister
Right layer of the mediastinum
Lamina mediastinalis dextra
Posterior mediastinum[1]—Cavum mediastinale posterius
Area of the diaphragm bare of peritoneum and attached by areolar tissue to the corresponding area of the liver
Parietal pleura
Pleura parietalis
Inferior vena cava
V. cava inferior
*Superior fossa of the omental sac[2]
*Recessus superior omentalis
Phrenocostal (diaphragmatico-costal) supplemental pleural space[3]—Sinus phrenicocostalis
*Hepatoduodenal ligament or omentum[4]-*Lig. hepatoduodenale
Foramen of Winslow
Foramen epiploicum (Winslowi)
*Vestibule of the omental sac[2]
*Vestibulum bursæ omentalis
Parietal peritoneum
Peritonæum parietale
Pancreaticogastric fold[2]
Plica gastropancreatica
Fatty capsule (tunica adiposa) of the kidney
Capsula adiposa renis
Omental tuberosity of the pancreas
Tuber omentale pancreatis
Transverse portion of the duodenum (third part)—Pars horizontalis (inferior) duodeni
Psoas magnus muscle—M. psoas major
Superior mesenteric vein—V. mesenterica superior
Superior mesenteric artery—A. mesenterica superior
1/3
Left layer of the mediastinum
Lamina mediastinalis sinistra
Descending thoracic aorta
Aorta descendens
Œsophagus (thoracic portion)
Pleural cavity
Cavum pleuræ
Costal pleura
Pleura costalis
Diaphragmatic pleura
Pleura diaphragmatica
Œsophagus (abdominal portion)
Spleen (gastric surface)
Lien (facies gastrica)
Gastrosplenic omentum or ligament[8]—Lig. gastrolienale
Omental sac (posterior wall)
Bursa omentalis
*Splenic fossa of the omental sac[2]
*Recessus lienalis bursæ omentalis
Costocolic or phrenocolic ligament, or pleurocolic fold[6]
Lig. phrenicocolicum
Splenic flexure of the colon
Flexura coli sinistra
Transverse mesocolon
Mesocolon transversum
*Descending mesocolon[7]
*Mesocolon descendens
Descending colon
Colon descendens
Left kidney
Ren sinister
Quadratus lumborum muscle
Ascending portion of the duodenum (fourth part)
Pars ascendens duodeni

[1] See Appendix, note 43.
[2] See Appendix, note 44.
[3] See Appendix, note 36.
[4] See Appendix, note 42.
[5] See note [1] to p. 467.
[6] See Appendix, note 41.
[7] See note [1] to p. 453.
[8] See Appendix, note 45.

Fig. 809.—The Thoracic and Abdominal Walls have been removed as far back as the Axillary Line (*see Fig.* 818, *p.* 488). The Pericardium, the Heart, and the Lungs have been completely removed, so that the Two Pleural Cavities covered by the Costal (Parietal) Pleura, and between these the Posterior Mediastinum and the Posterior Part of the Superior Mediastinum, are seen. The Liver, the Stomach, and the Greater Part of the Intestine have been removed, in order to show the Mutual Relations of the Duodenum, the Pancreas, and the Spleen. The Posterior Wall of the *Vestibule of the Omental Sac, consisting of Parietal Peritoneum, and the Posterior Wall of the Omental Sac, consisting of the Axial Portion of the Mesogastrium, are visible, also the *Superior Fossa and the *Splenic Fossa of the Omental Sac.

Topographical Anatomy of the Thoracic Organs and of the Viscera in the Upper Part of the Abdominal Cavity.

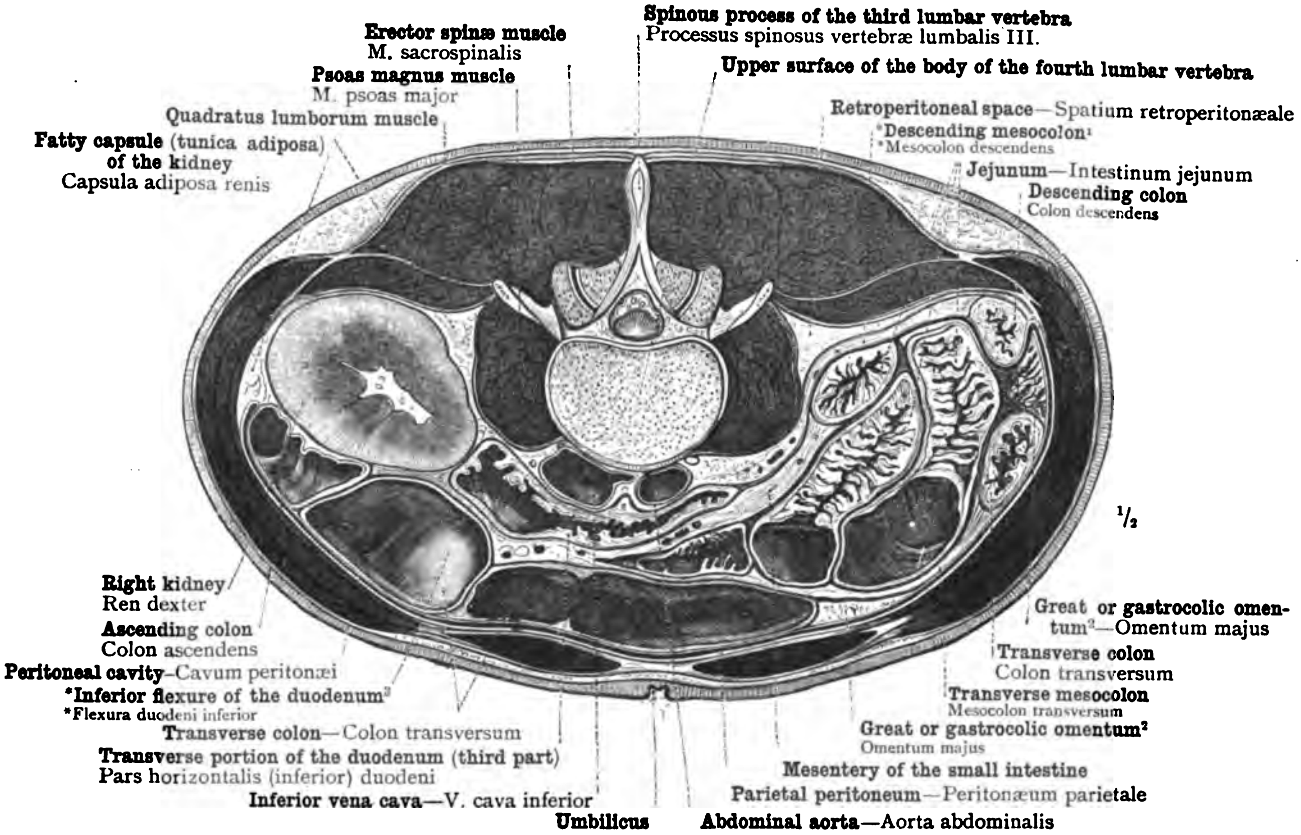

Diaphragm (right inner crus or pillar[1])
Diaphragma (crus mediale dextrum)
Right kidney (upper extremity)
Ren dexter (extremitas superior)
Retroperitoneal space—Spatium retroperitonæale
Peritoneal cavity—Cavum peritonæi
Parietal peritonæum—Peritoneum parietale
Diaphragm (costal portion)
Diaphragma (pars costalis)
Pleural cavity (phrenocostal or diaphragmaticocostal supplemental pleural space[3])
Cavum pleuræ (sinus phrenicocostalis)
Spinous process of the twelfth dorsal vertebra
Processus spinosus vertebræ thoracalis XII.
Descending thoracic aorta—Aorta descendens
Diaphragm (left intermediate crus or pillar[1])
Diaphragma (crus mediale sinistrum)
Left suprarenal capsule[2]
Glandula suprarenalis sinistra
Twelfth rib—Costa XII.
Left kidney—Ren sinister
Pancreas (tail)—Pancreas (cauda)
Spleen—Lien
1/2
Hepatorenal ligament
Lig. hepatorenale
Right lobe of the liver—Lobus dexter hepatis
*Hepatoduodenal ligament or omentum[4]
*Lig. hepatoduodenale
Inferior vena cava—V. cava inferior
Portal vein—V. portæ
Pancreas (body)—Pancreas (corpus)
Round ligament of the liver
Lig. teres hepatis
Gastrosplenic omentum or ligament[5]—Lig. gastrolienale
Omental sac—Bursa omentalis
Stomach (body)—Ventriculus (corpus)
Peritoneal cavity—Cavum peritonæi
Small or gastrohepatic omentum (*gastrohepatic ligament)[6]—Omentum minus (lig. hepatogastricum)
Left lobe of the liver—Lobus sinister hepatis
Falciform, broad, or suspensory ligament of the liver
Lig. falciforme hepatis

[1] See Appendix, note 37.
[2] Called also *suprarenal body*, or *adrenal*.
[3] See Appendix, note 36.
[4] See Appendix, note 42.
[5] The *gastrosplenic omentum* is connected below with the *great omentum*, and is often regarded as a part of it.—TR.
[6] See Appendix, note 42.

FIG. 810.—HORIZONTAL SECTION THROUGH THE TRUNK PASSING BETWEEN THE BODIES OF THE TWELFTH DORSAL AND FIRST LUMBAR VERTEBRÆ.

The section cuts the liver almost through its greatest transverse (horizontal) dimension, the stomach above the middle of its body, the spleen about the middle of its vertical extent, the body and tail of the pancreas near the upper border of that organ, the right kidney near its upper extremity, the left kidney above its middle ; both suprarenal capsules also appear in the section. Between the vena cava inferior and the *hepatoduodenal ligament (*see Appendix, note* 42), the section passes through the foramen of Winslow (foramen epiploicum Winslowi), into which the caudate lobe of the liver (*processus caudatus hepatis—see Appendix, note* 16) projects ; behind the small or gastrohepatic omentum (*see Appendix, note* 42) the *vestibule of the omental sac (*see Appendix, note* 44) is cut across. The aorta is divided as it passes through the aortic opening in the diaphragm, the vena cava inferior below its entrance into the fissure or fossa of the vena cava, and the portal vein just after it has passed between the layers of the small or gastrohepatic omentum.

Topographical Anatomy of the Abdominal Viscera.


Erector spinæ muscle
M. sacrospinalis
Psoas magnus muscle
M. psoas major
Quadratus lumborum muscle
Fatty capsule (tunica adiposa) of the kidney
Capsula adiposa renis
Spinous process of the third lumbar vertebra
Processus spinosus vertebræ lumbalis III.
Upper surface of the body of the fourth lumbar vertebra
Retroperitoneal space—Spatium retroperitonæale
*Descending mesocolon[1]
*Mesocolon descendens
Jejunum—Intestinum jejunum
Descending colon
Colon descendens
1/2
Right kidney
Ren dexter
Ascending colon
Colon ascendens
Peritoneal cavity—Cavum peritonæi
*Inferior flexure of the duodenum[3]
*Flexura duodeni inferior
Transverse colon—Colon transversum
Transverse portion of the duodenum (third part)
Pars horizontalis (inferior) duodeni
Inferior vena cava—V. cava inferior
Umbilicus
Great or gastrocolic omentum[2]—Omentum majus
Transverse colon
Colon transversum
Transverse mesocolon
Mesocolon transversum
Great or gastrocolic omentum[2]
Omentum majus
Mesentery of the small intestine
Parietal peritoneum—Peritonæum parietale
Abdominal aorta—Aorta abdominalis

[1] See note [1] to p. 453. [2] Or *epiploon*. See note [2] to p 456. [3] See Appendix, note [6].

FIG. 811.—HORIZONTAL SECTION THROUGH THE TRUNK AT THE LEVEL OF THE UMBILICUS, PASSING BETWEEN THE BODIES OF THE THIRD AND FOURTH LUMBAR VERTEBRÆ.

The right kidney is divided near its inferior extremity, but the left kidney is entirely above the plane of section. As regards the small intestine, the whole length of the transverse portion of the duodenum appears in the section, in addition to several coils of the jejunum. The ascending colon is divided close to the commencement of the hepatic flexure. The greater part of the transverse colon is distended, and is divided nearly in the direction of its long axis; in the neighbourhood of the splenic flexure, however, it is contracted, and is divided transversely; the descending colon is also seen in transverse section. The section further shows portions of the great or gastrocolic omentum, of the mesentery of the small intestine, and of the *descending mesocolon (*see note* [1] *above*).

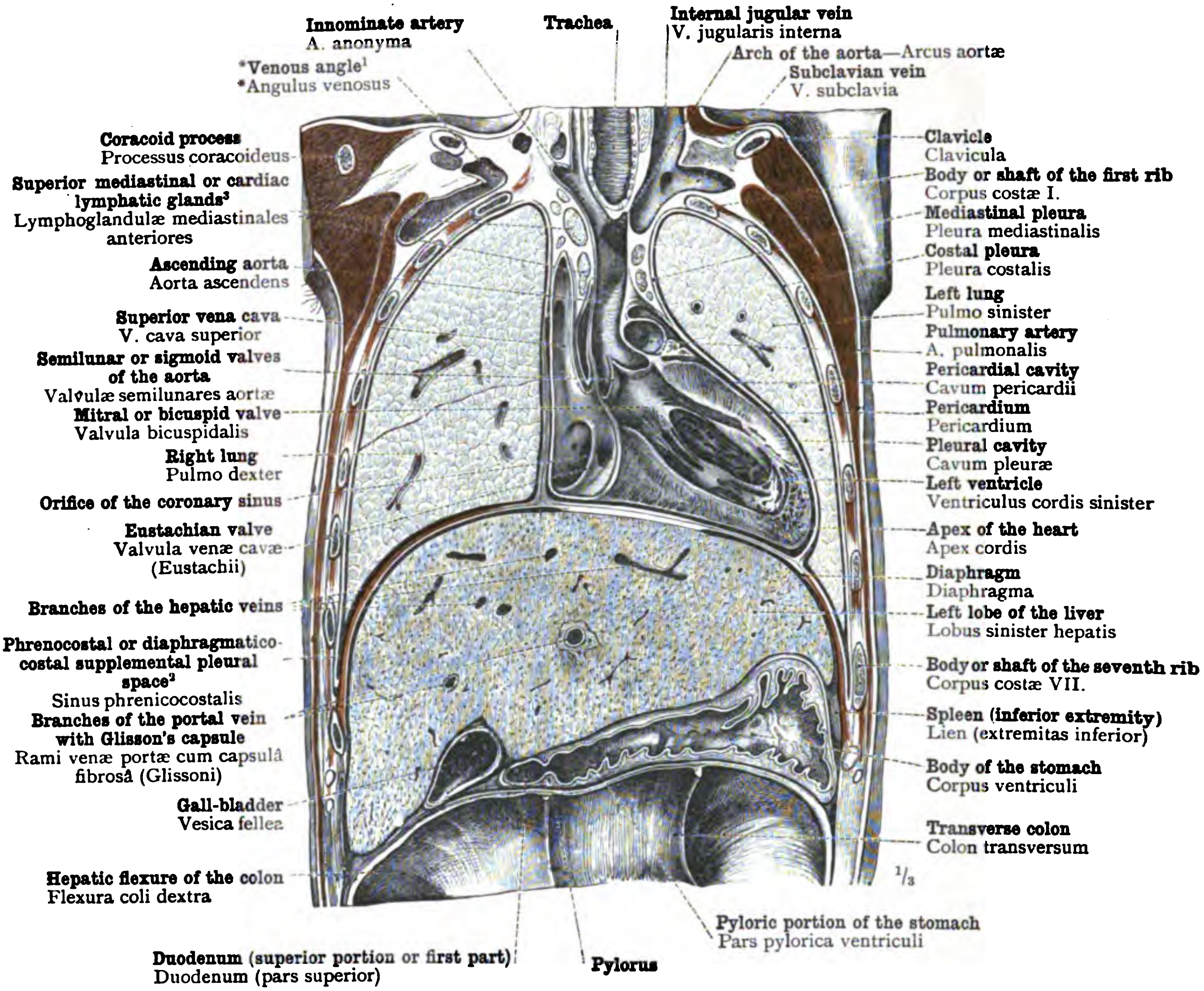


FIG. 812.—CORONAL SECTION THROUGH THE TRUNK; ON THE RIGHT SIDE OF THE BODY THE SECTION PASSES THROUGH THE ANTERIOR AXILLARY FOLD, ON THE LEFT SIDE A LITTLE IN FRONT OF THIS FOLD.

The left ventricle, the ascending aorta, and the superior vena cava are divided longitudinally, while the pulmonary artery is divided transversely. The right auricle is divided in front of the orifices of the inferior vena cava and the coronary sinus. The liver is cut across almost in its greatest transverse (vertical) dimension. The situation of the contracted stomach and of the superior or first part of the duodenum in relation to the liver and to the greatly distended transverse colon is to be noted.

[The superior and middle mediastina of English anatomists are seen in coronal section; the plane between them is at the level of the reflection of the pericardium on the ascending aorta, above the transversely divided pulmonary artery. *See note* [2] *to p.* 410 *and Appendix*, *note* [24].—TR.]

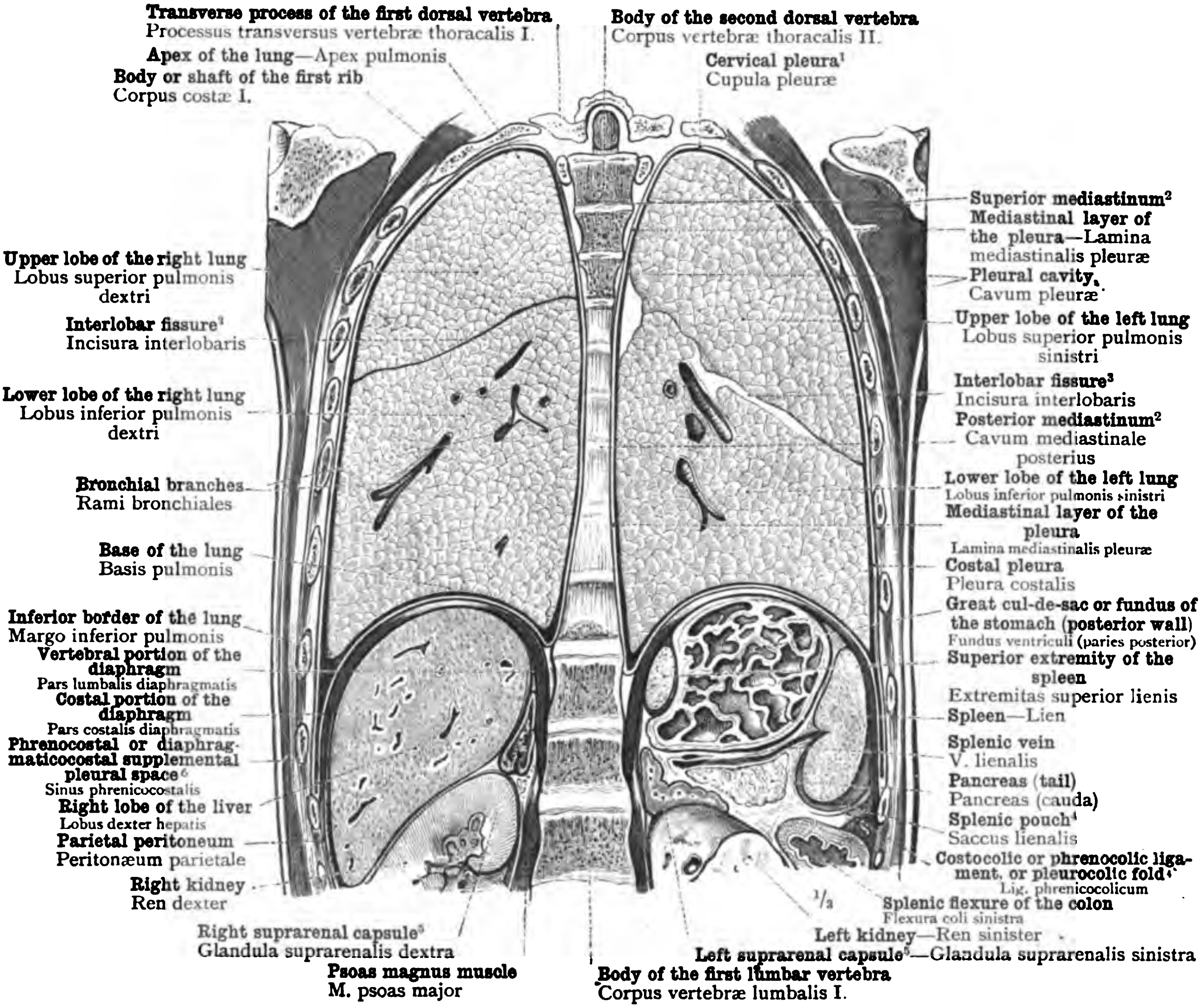
Topographical Anatomy of the Thoracic Organs and of the Viscera in the Upper Part of the Abdominal Cavity.

---

[1] *Angulus venosus*, the **venous angle*, is the name given by the author to the junction of the internal jugular and subclavian veins to form the innominate vein. The term is not used by English anatomists.—TR.

[2] See Appendix, note 36.

[3] There are three or four lymphatic glands behind the lower part of the body of the sternum, between that bone and the pericardium, known as the *anterior mediastinal lymphatic glands*. Those figured here are, however, in the *superior mediastinum* of English anatomists, and are, therefore, *superior mediastinal lymphatic glands* (see note [1] to p. 456). As they receive the lymphatics of the heart in addition to those of the greater part of the pericardium and of the thymus gland, they are often called the *cardiac lymphatic glands*.—TR.

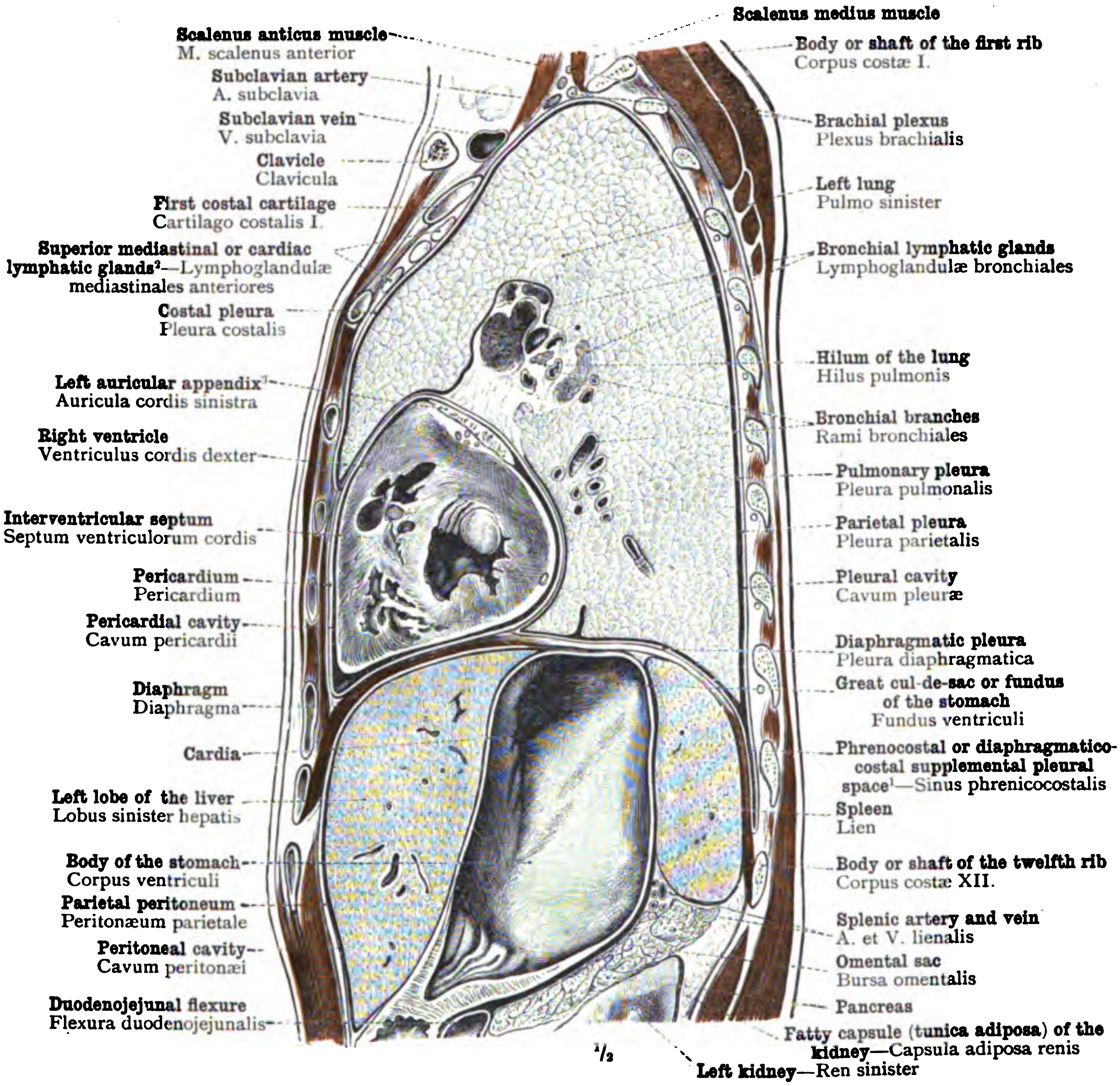

Transverse process of the first dorsal vertebra
Processus transversus vertebræ thoracalis I.
Apex of the lung—Apex pulmonis
Body or shaft of the first rib
Corpus costæ I.
Body of the second dorsal vertebra
Corpus vertebræ thoracalis II.
Cervical pleura¹
Cupula pleuræ
Superior mediastinum²
Mediastinal layer of the pleura—Lamina mediastinalis pleuræ
Pleural cavity
Cavum pleuræ
Upper lobe of the left lung
Lobus superior pulmonis sinistri
Interlobar fissure³
Incisura interlobaris
Posterior mediastinum²
Cavum mediastinale posterius
Lower lobe of the left lung
Lobus inferior pulmonis sinistri
Mediastinal layer of the pleura
Lamina mediastinalis pleuræ
Costal pleura
Pleura costalis
Great cul-de-sac or fundus of the stomach (posterior wall)
Fundus ventriculi (paries posterior)
Superior extremity of the spleen
Extremitas superior lienis
Spleen—Lien
Splenic vein
V. lienalis
Pancreas (tail)
Pancreas (cauda)
Splenic pouch⁴
Saccus lienalis
Costocolic or phrenocolic ligament, or pleurocolic fold⁴
Lig. phrenicocolicum
Splenic flexure of the colon
Flexura coli sinistra
1/3
Left kidney—Ren sinister
Left suprarenal capsule⁵—Glandula suprarenalis sinistra
Body of the first lumbar vertebra
Corpus vertebræ lumbalis I.
Psoas magnus muscle
M. psoas major
Right suprarenal capsule⁵
Glandula suprarenalis dextra
Upper lobe of the right lung
Lobus superior pulmonis dextri
Interlobar fissure¹
Incisura interlobaris
Lower lobe of the right lung
Lobus inferior pulmonis dextri
Bronchial branches
Rami bronchiales
Base of the lung
Basis pulmonis
Inferior border of the lung
Margo inferior pulmonis
Vertebral portion of the diaphragm
Pars lumbalis diaphragmatis
Costal portion of the diaphragm
Pars costalis diaphragmatis
Phrenocostal or diaphragmaticocostal supplemental pleural space⁶
Sinus phrenicocostalis
Right lobe of the liver
Lobus dexter hepatis
Parietal peritoneum
Peritonæum parietale
Right kidney
Ren dexter

[1] See note [1] to p. 467.
[2] See note [2] to p. 410 and Appendix, note 24.
[3] See note [1] to p. 464.
[4] See Appendix, note 41.
[5] Called also *suprarenal body*, or *adrenal*.
[6] See Appendix, note 36.

FIG. 813.—CORONAL SECTION THROUGH THE TRUNK, A LITTLE BEHIND THE AXILLARY LINE (*see Fig.* 818, *p.* 488).

The section passes *through* the bodies of the uppermost and lowermost dorsal vertebræ, but passes *in front of* the bodies of the fifth to the tenth dorsal vertebræ; hence those portions of the viscera that lie in the posterior portions of the thoracic and abdominal cavities on either side of the spinal column appear in the section. The lungs are divided very nearly in their greatest vertical dimension. In the right side of the abdominal cavity, the relations of the kidney and the suprarenal capsule (*see note* [5] *above*) to the liver are shown; in the left side, the relations of the spleen to the great cul-de-sac or fundus of the stomach, to the tail of the pancreas, and to the splenic flexure of the colon.

Topographical Anatomy of the Thoracic Organs and of the Viscera in the Upper Part of the Abdominal Cavity.



[1] See Appendix, note 36.

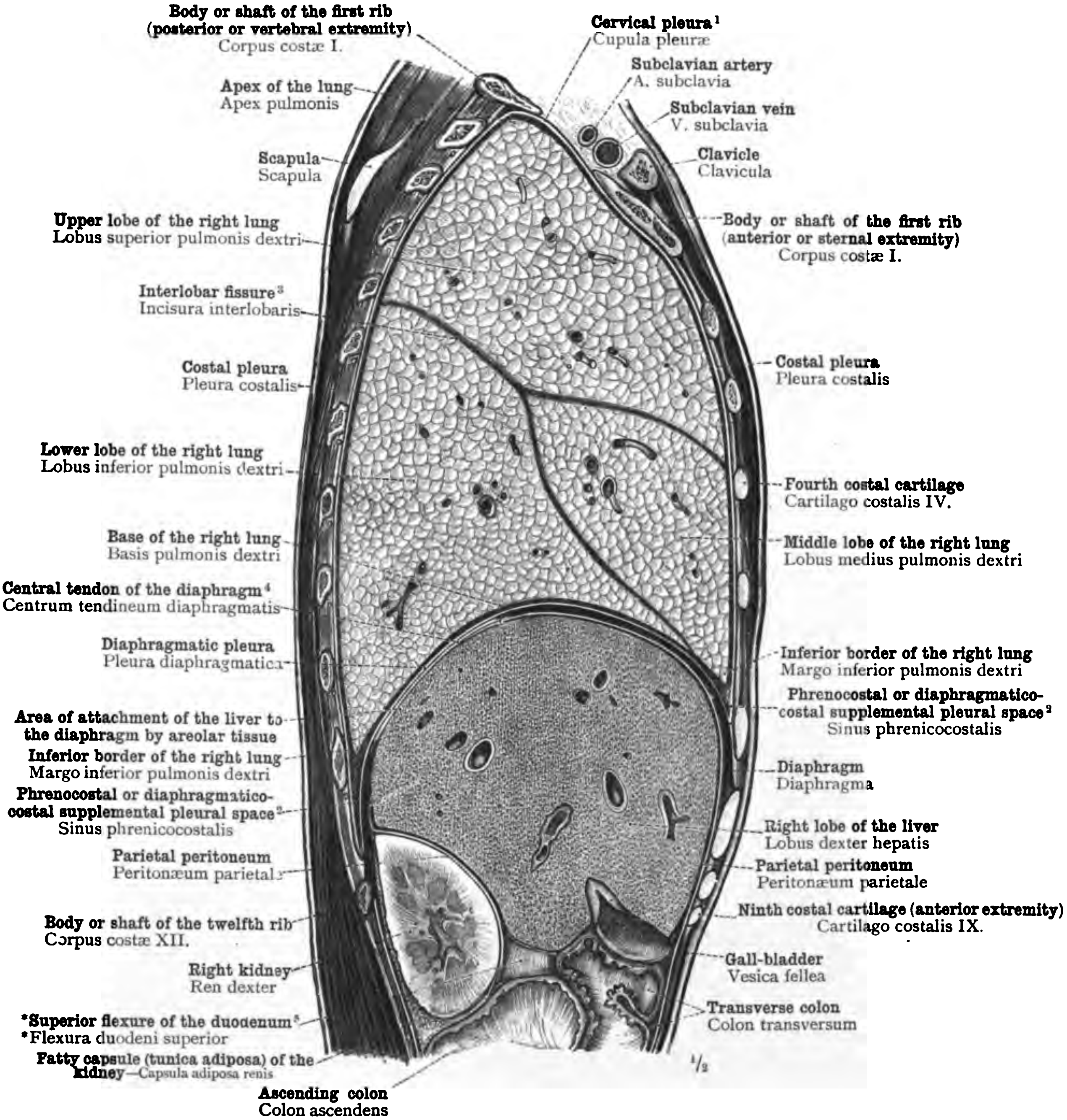
[2] See note 3 to p. 482.

[3] See note 3 to p. 411.

FIG. 814.—SAGITTAL SECTION THROUGH THE TRUNK, 4 CENTIMETRES (1·575 INCHES) TO THE LEFT OF THE MEDIAN PLANE.

The section passes through the hilum of the left lung, and divides the lung itself very nearly in its greatest vertical dimension; the two ventricles are divided obliquely. The body and the great cul-de-sac or fundus of the moderately distended stomach are divided approximately in their long axis, so that the position of the cardia at the upper end of the small curvature of the stomach is well shown. The relations of the stomach to the left lobe of the liver, to the spleen, to the pancreas, and to the duodenojejunal flexure, are to be noted.

Topographical Anatomy of the Thoracic Organs and of the Viscera in the Upper Part of the Abdominal Cavity.


Body or shaft of the first rib (posterior or vertebral extremity)
Corpus costæ I.
Apex of the lung
Apex pulmonis
Scapula
Scapula
Upper lobe of the right lung
Lobus superior pulmonis dextri
Interlobar fissure [3]
Incisura interlobaris
Costal pleura
Pleura costalis
Lower lobe of the right lung
Lobus inferior pulmonis dextri
Base of the right lung
Basis pulmonis dextri
Central tendon of the diaphragm [4]
Centrum tendineum diaphragmatis
Diaphragmatic pleura
Pleura diaphragmatica
Area of attachment of the liver to the diaphragm by areolar tissue
Inferior border of the right lung
Margo inferior pulmonis dextri
Phrenocostal or diaphragmatico-costal supplemental pleural space [2]
Sinus phrenicocostalis
Parietal peritoneum
Peritonæum parietale
Body or shaft of the twelfth rib
Corpus costæ XII.
Right kidney
Ren dexter
*Superior flexure of the duodenum [5]
*Flexura duodeni superior
Fatty capsule (tunica adiposa) of the kidney—Capsula adiposa renis
Ascending colon
Colon ascendens
Cervical pleura [1]
Cupula pleuræ
Subclavian artery
A. subclavia
Subclavian vein
V. subclavia
Clavicle
Clavicula
Body or shaft of the first rib (anterior or sternal extremity)
Corpus costæ I.
Costal pleura
Pleura costalis
Fourth costal cartilage
Cartilago costalis IV.
Middle lobe of the right lung
Lobus medius pulmonis dextri
Inferior border of the right lung
Margo inferior pulmonis dextri
Phrenocostal or diaphragmatico-costal supplemental pleural space [2]
Sinus phrenicocostalis
Diaphragm
Diaphragma
Right lobe of the liver
Lobus dexter hepatis
Parietal peritoneum
Peritonæum parietale
Ninth costal cartilage (anterior extremity)
Cartilago costalis IX.
Gall-bladder
Vesica fellea
Transverse colon
Colon transversum
1/2

[1] See note [1] to p. 467.

[2] See Appendix, note 36.

[3] See note [1] to p. 464.

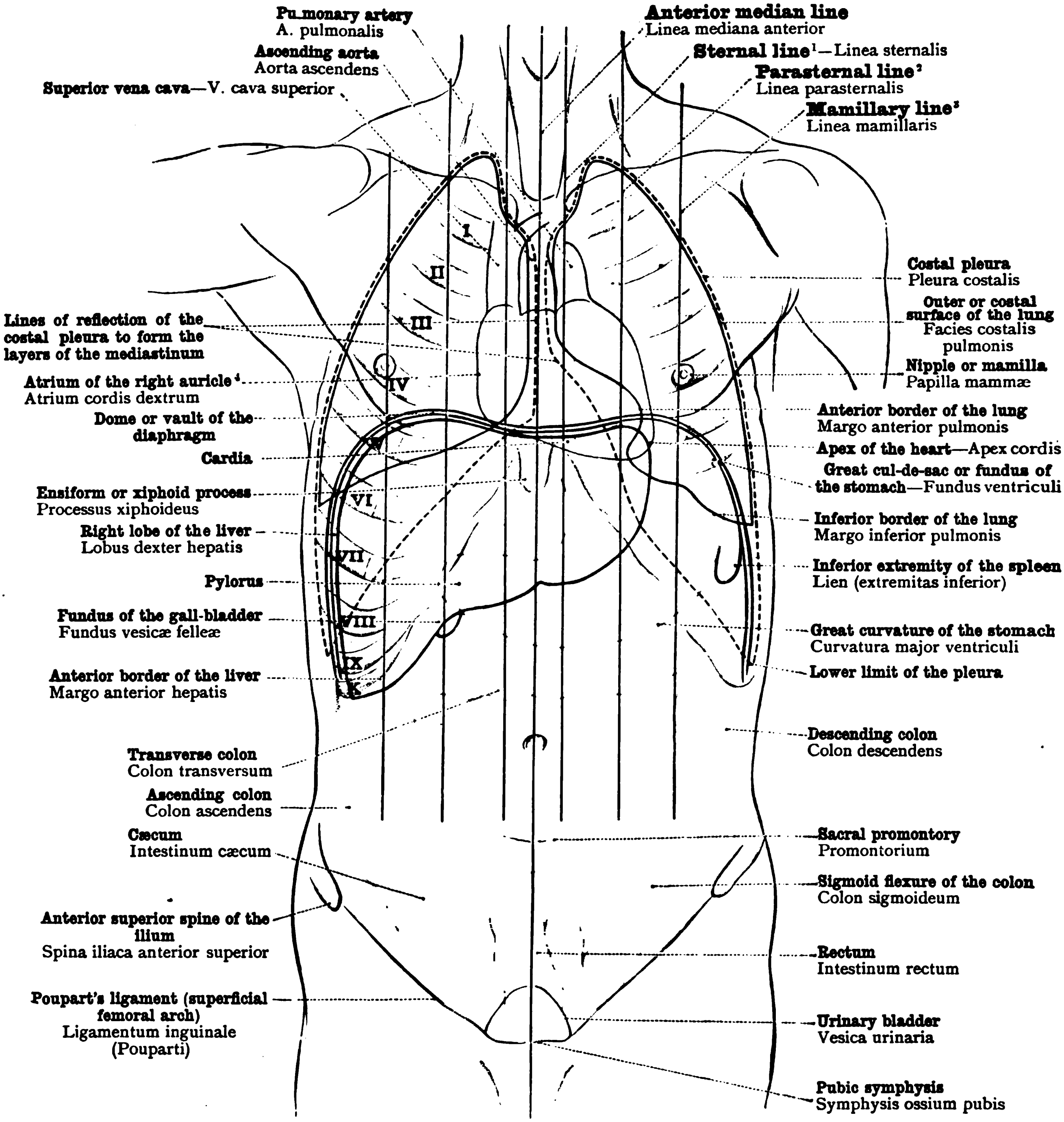
[4] Called also the *trefoil* or *cordiform tendon* of the diaphragm.

[5] See Appendix note 6.

FIG. 815.—SAGITTAL SECTION THROUGH THE TRUNK, 6 CENTIMETRES (2·362 INCHES) TO THE RIGHT OF THE MEDIAN PLANE.

The section passes to the right of the hilum of the lung, and divides all three lobes of the organ. The other organs seen in the section are: The right lobe of the liver, the gall-bladder, the right kidney, and portions of the ascending and transverse colon, which latter is moderately distended. The *superior flexure of the duodenum is also shown, its right (convex) wall appearing in the section.

Topographical Anatomy of the Right Lung and of the Viscera in the Upper Part of the Abdominal Cavity.


Pulmonary artery
A. pulmonalis
Ascending aorta
Aorta ascendens
Superior vena cava—V. cava superior
Anterior median line
Linea mediana anterior
Sternal line[1]—Linea sternalis
Parasternal line[2]
Linea parasternalis
Mamillary line[3]
Linea mamillaris
I
II
III
IV
V
VI
VII
VIII
IX
X
Costal pleura
Pleura costalis
Outer or costal surface of the lung
Facies costalis pulmonis
Nipple or mamilla
Papilla mammæ
Lines of reflection of the costal pleura to form the layers of the mediastinum
Atrium of the right auricle[4]
Atrium cordis dextrum
Dome or vault of the diaphragm
Cardia
Ensiform or xiphoid process
Processus xiphoideus
Right lobe of the liver
Lobus dexter hepatis
Pylorus
Fundus of the gall-bladder
Fundus vesicæ felleæ
Anterior border of the liver
Margo anterior hepatis
Anterior border of the lung
Margo anterior pulmonis
Apex of the heart—Apex cordis
Great cul-de-sac or fundus of the stomach—Fundus ventriculi
Inferior border of the lung
Margo inferior pulmonis
Inferior extremity of the spleen
Lien (extremitas inferior)
Great curvature of the stomach
Curvatura major ventriculi
Lower limit of the pleura
Transverse colon
Colon transversum
Ascending colon
Colon ascendens
Cæcum
Intestinum cæcum
Anterior superior spine of the ilium
Spina iliaca anterior superior
Poupart's ligament (superficial femoral arch)
Ligamentum inguinale (Pouparti)
Descending colon
Colon descendens
Sacral promontory
Promontorium
Sigmoid flexure of the colon
Colon sigmoideum
Rectum
Intestinum rectum
Urinary bladder
Vesica urinaria
Pubic symphysis
Symphysis ossium pubis

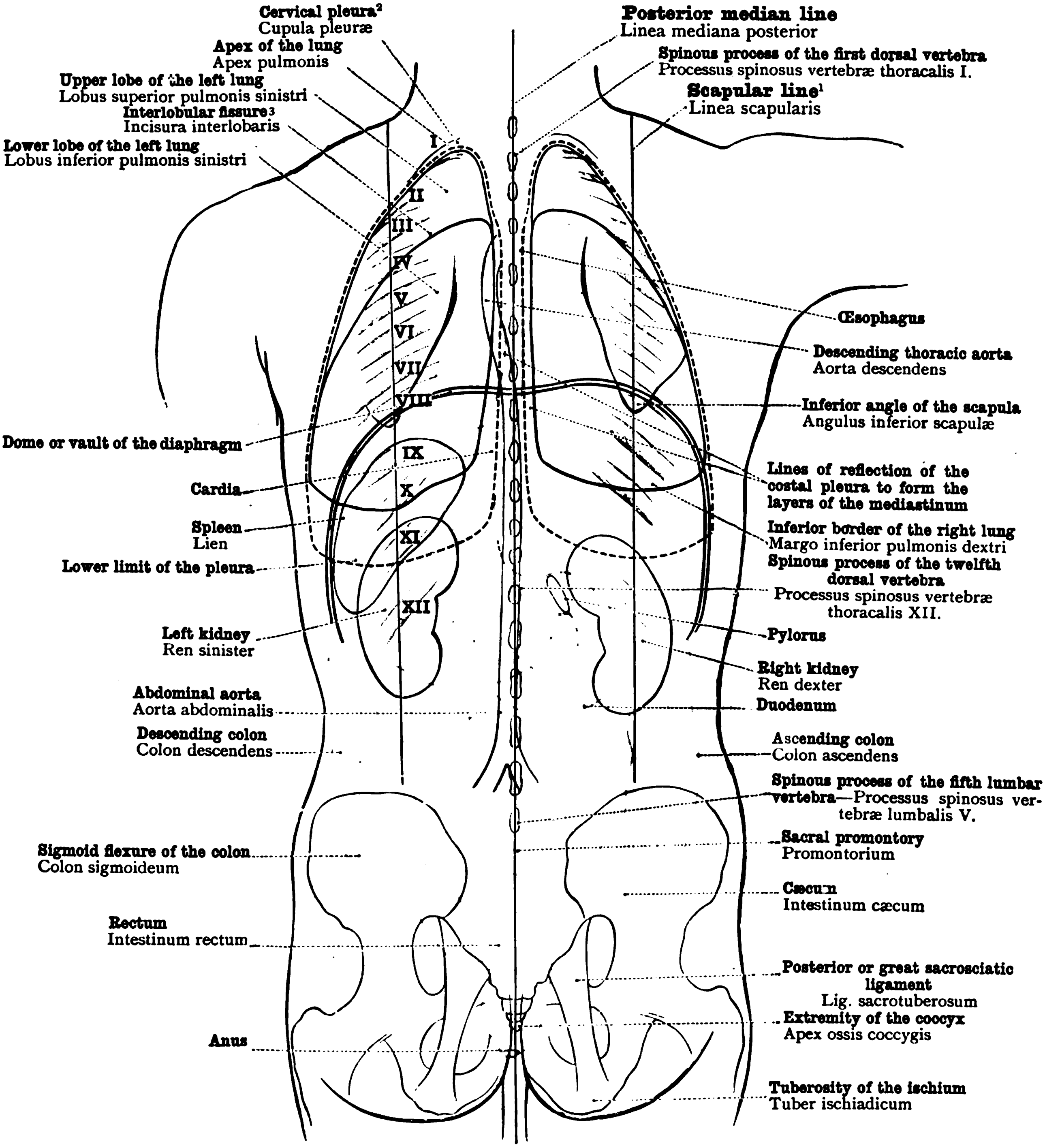
[1] See Appendix, note 46. [2] See Appendix, note 47. [3] See Appendix, note 48. [4] See note 3 to p. 411.

FIG. 816.—PROJECTION-OUTLINES OF THE THORACIC AND ABDOMINAL ORGANS ON THE ANTERIOR SURFACE OF THE TRUNK.

The red line indicates the outline of the heart and the great vessels (superior vena cava, ascending aorta, and pulmonary artery); the continuous blue lines indicate the outlines of the two lungs; the dotted blue lines, the boundaries of the pleural cavities. The violet line indicates the projection-outline of the liver and the fundus of the gall-bladder; the yellow lines indicate the projection-outline of the stomach and the different sections of the large intestine. The projection-outlines of the dome or vault of the diaphragm and of the inferior extremity of the spleen are black.

GUIDE-LINES FOR THE DETERMINATION OF THE POSITION OF THE THORACIC ORGANS: ANTERIOR MEDIAN LINE, STERNAL LINE (*see Appendix, note* 46), PARASTERNAL LINE (*see Appendix, note* 47), AND MAMILLARY LINE (*see Appendix, note* 48). THE RIBS ARE DISTINGUISHED BY ROMAN NUMERALS.

Projection-Outlines of the Thoracic and Abdominal Viscera.


Cervical pleura[2]
Cupula pleuræ
Apex of the lung
Apex pulmonis
Upper lobe of the left lung
Lobus superior pulmonis sinistri
Interlobular fissure[3]
Incisura interlobaris
Lower lobe of the left lung
Lobus inferior pulmonis sinistri
Posterior median line
Linea mediana posterior
Spinous process of the first dorsal vertebra
Processus spinosus vertebræ thoracalis I.
Scapular line[1]
Linea scapularis
I
II
III
IV
V
VI
VII
VIII
IX
X
XI
XII
Œsophagus
Descending thoracic aorta
Aorta descendens
Inferior angle of the scapula
Angulus inferior scapulæ
Dome or vault of the diaphragm
Lines of reflection of the costal pleura to form the layers of the mediastinum
Cardia
Inferior border of the right lung
Margo inferior pulmonis dextri
Spleen
Lien
Spinous process of the twelfth dorsal vertebra
Processus spinosus vertebræ thoracalis XII.
Lower limit of the pleura
Pylorus
Left kidney
Ren sinister
Right kidney
Ren dexter
Abdominal aorta
Aorta abdominalis
Duodenum
Descending colon
Colon descendens
Ascending colon
Colon ascendens
Spinous process of the fifth lumbar vertebra—Processus spinosus vertebræ lumbalis V.
Sigmoid flexure of the colon
Colon sigmoideum
Sacral promontory
Promontorium
Cæcum
Intestinum cæcum
Rectum
Intestinum rectum
Posterior or great sacrosciatic ligament
Lig. sacrotuberosum
Extremity of the coccyx
Apex ossis coccygis
Anus
Tuberosity of the ischium
Tuber ischiadicum

---

[1] The *scapular line* is a vertical line traced on the back of the trunk passing through the inferior angle of the scapula.—Tr.

[2] See note [1] to p. 467.

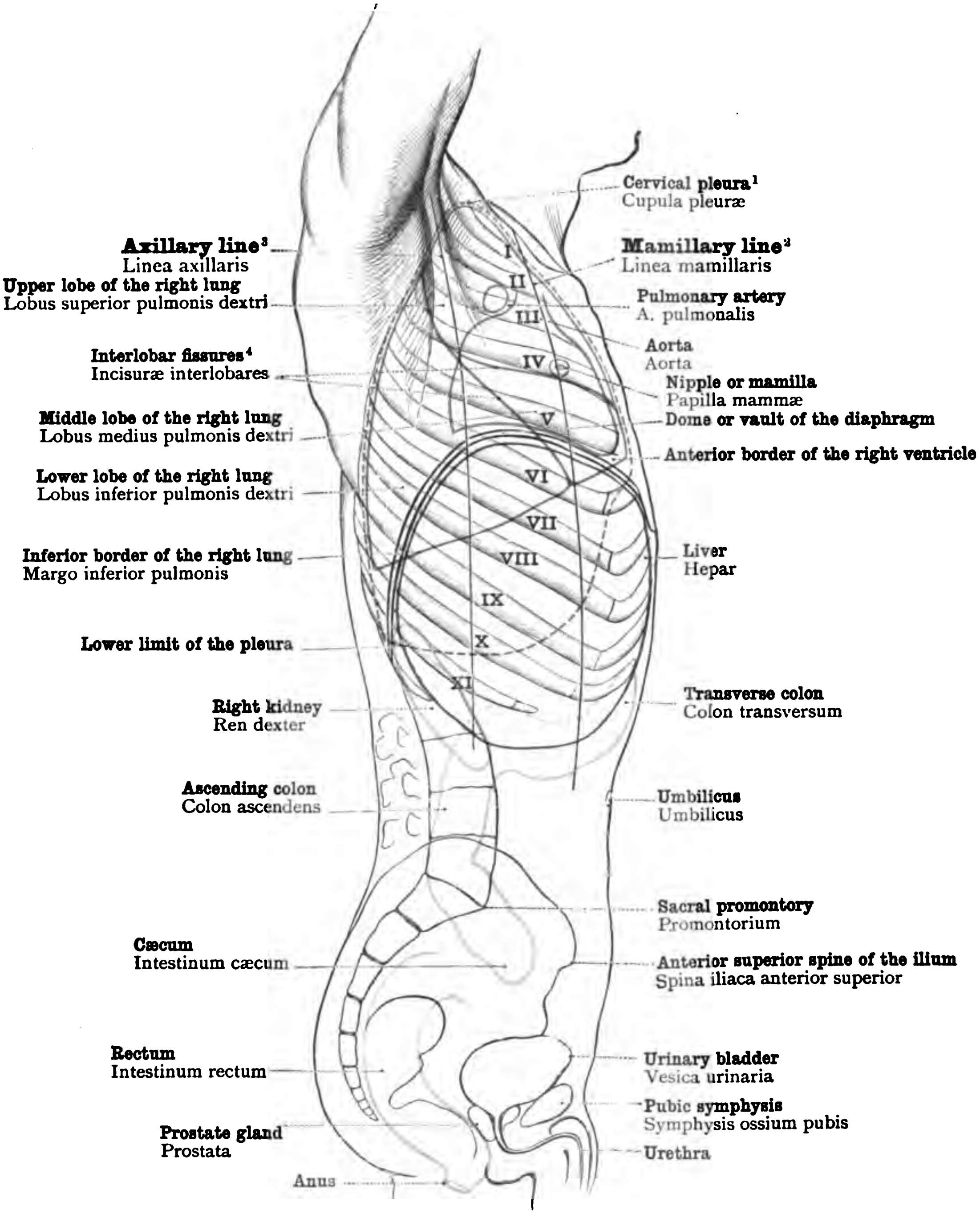
[3] See note [1] to p. 464.

FIG. 817.—PROJECTION-OUTLINES OF THE THORACIC AND ABDOMINAL ORGANS ON THE POSTERIOR SURFACE OF THE TRUNK.

The red lines indicate the outlines of the descending thoracic aorta, the abdominal aorta, and the spleen; the continuous blue lines indicate the outlines of the two lungs and of their upper and lower lobes; the dotted blue lines, the boundaries of the pleural cavities. The yellow lines indicate the projection-outlines of the stomach, the duodenum, and various portions of the large intestine. The projection-outlines of the dome or vault of the diaphragm and of the two kidneys are black.

GUIDE-LINES FOR THE DETERMINATION OF THE POSITION OF THE THORACIC ORGANS: POSTERIOR MEDIAN LINE AND SCAPULAR LINE (*see note* [1] *above*). THE RIBS ARE DISTINGUISHED BY ROMAN NUMERALS.

Projection-Outlines of the Thoracic and Abdominal Viscera.



[1] See note [1] to p. 467. [2] See Appendix, note 48. [3] See Appendix, note 49. [4] See note [1] to p. 464.

FIG. 818.—PROJECTION-OUTLINES OF THE THORACIC AND ABDOMINAL ORGANS ON THE RIGHT SIDE OF THE TRUNK.

The red line indicates the outline of the heart and the pulmonary artery ; the continuous blue lines indicate the outlines of the right lung and its three lobes ; the dotted blue line indicates the boundaries of the pleural cavity. The violet line indicates the projection-outline of the right lobe of the liver ; the yellow lines indicate the projection-outlines of the right kidney and the different sections of the large intestine.

GUIDE-LINES FOR THE DETERMINATION OF THE POSITION OF THE THORACIC ORGANS: AXILLARY LINE (*see Appendix, note* 49) AND MAMILLARY LINE (*see Appendix, note* 48). THE RIBS ARE DISTINGUISHED BY ROMAN NUMERALS.

Projection-Outlines of the Thoracic and Abdominal Viscera.

APPARATUS UROGENITALIS

GENITO-URINARY APPARATUS

ORGANA UROPOËTICA

URINARY ORGANS

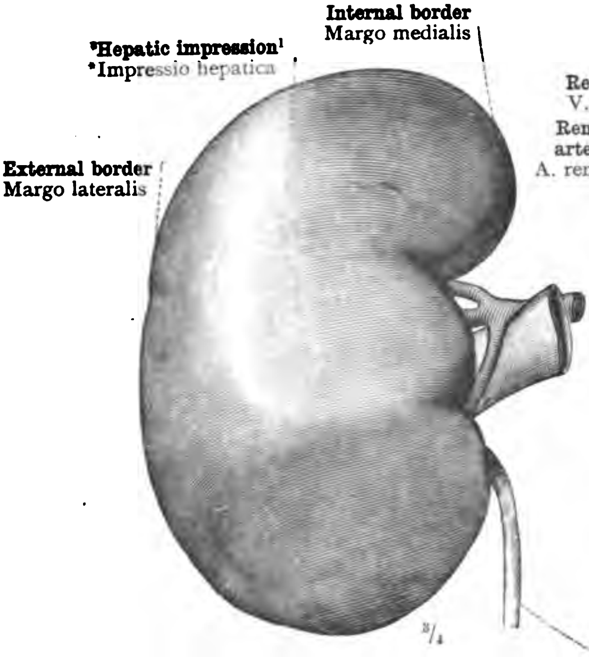


FIG. 819.—REN DEXTER, THE RIGHT KIDNEY. FACIES ANTERIOR, ANTERIOR SURFACE.

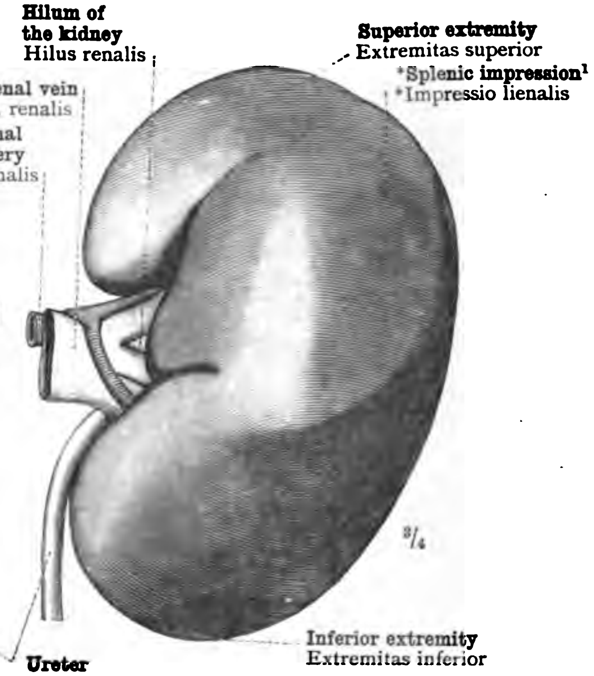


FIG. 820.—REN SINISTER, THE LEFT KIDNEY. FACIES ANTERIOR, ANTERIOR SURFACE.

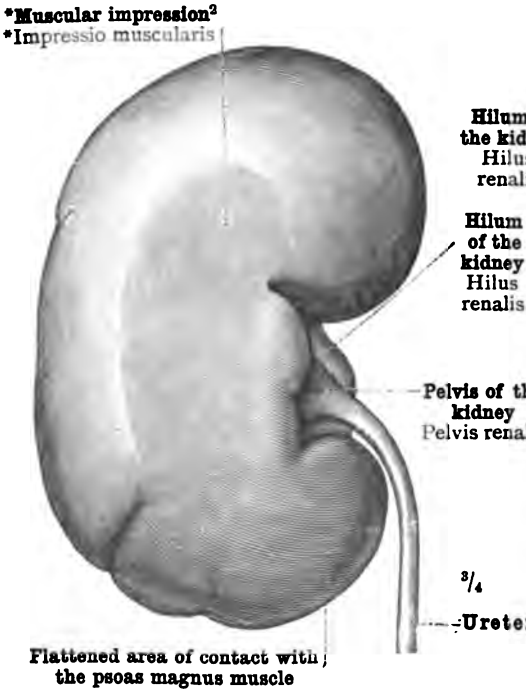


FIG. 821.—REN SINISTER, THE LEFT KIDNEY. FACIES POSTERIOR, POSTERIOR SURFACE.

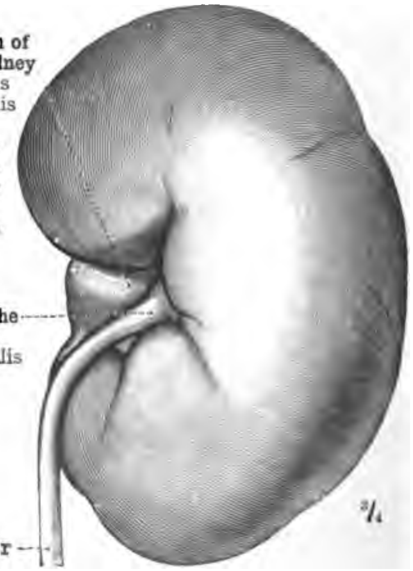


FIG. 822.—REN DEXTER, THE RIGHT KIDNEY. FACIES POSTERIOR, POSTERIOR SURFACE.

---

[1] *Impressions.*—When the solid viscera are hardened *in situ*, their surface presents facets corresponding to the areas of contact with one another and with the structures forming the wall of the abdominal cavity. Such facets are termed *impressions*. The word is used most frequently in connexion with the *impressions* of the liver.—TR.

[2] The *muscular impression* is a flattening, very variable in extent, indicating the area of contact of the kidney with the anterior surface of the quadratus lumborum muscle (see also note [1]).—TR.

Ren—The kidney.

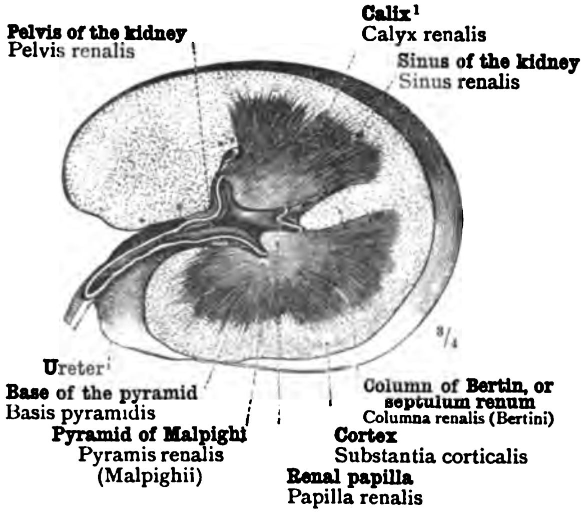


FIG. 823.—HORIZONTAL SECTION THROUGH THE MIDDLE OF THE RIGHT KIDNEY AND THE RENAL PELVIS.

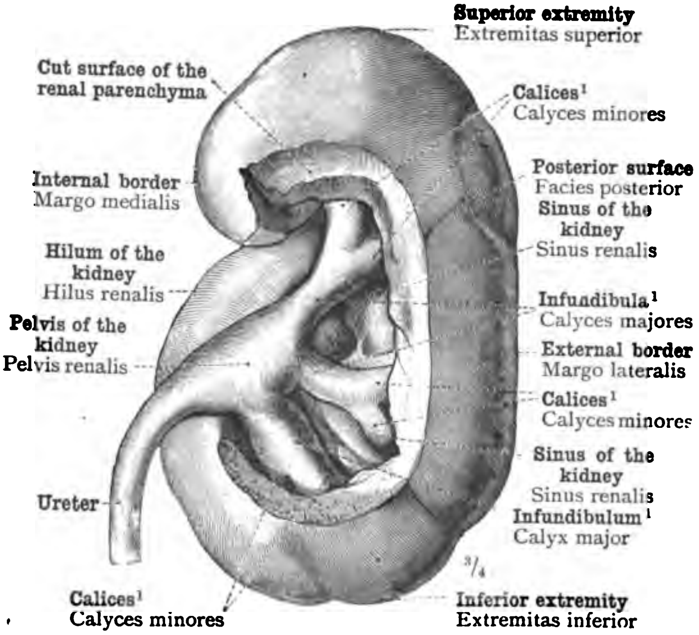


FIG. 824.—PELVIS RENALIS, THE PELVIS OF THE KIDNEY WITH THE CALICES AND INFUNDIBULA (CALYCES RENALES MINORES ET MAJORES) LAID BARE BY THE REMOVAL OF A PORTION OF THE RENAL PARENCHYMA FROM BEHIND.

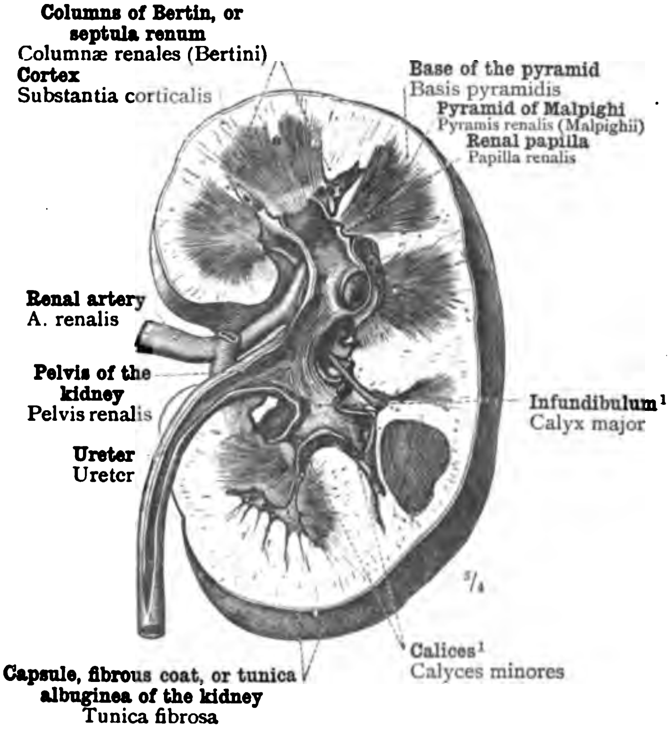


FIG. 825.—CORONAL SECTION THROUGH THE RIGHT KIDNEY AND THE RENAL PELVIS. SUBSTANTIA CORTICALIS, THE CORTEX; SUBSTANTIA MEDULLARIS, THE MEDULLA.

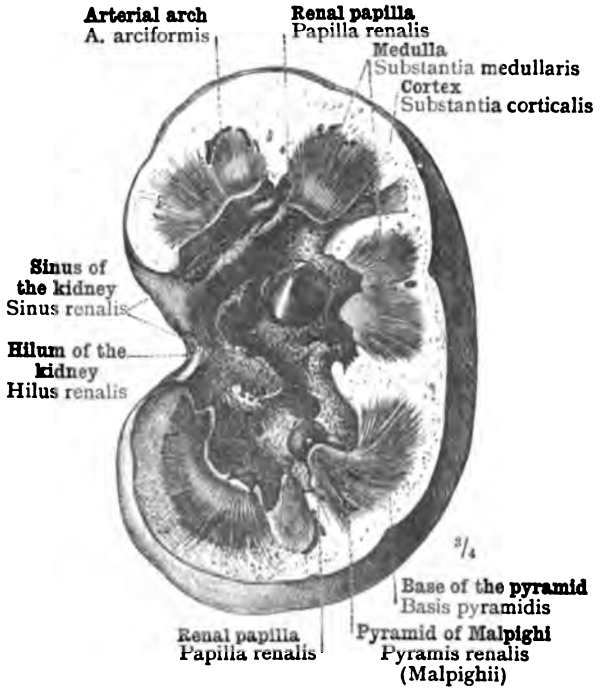


FIG. 826.—SINUS RENALIS, THE SINUS OF THE KIDNEY, DISPLAYED IN A CORONALLY-BISECTED KIDNEY BY REMOVAL OF THE RENAL PELVIS AND THE BLOODVESSELS. POSTERIOR HALF.

---

[1] See Appendix, note 50.

Ren—The kidney.

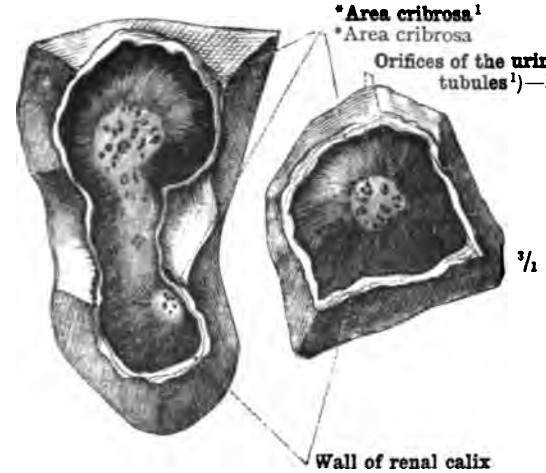

*Area cribrosa[1]
*Area cribrosa
Orifices of the uriniferous tubules (excretory tubules[1])—Foramina papillaria
3/1
Wall of renal calix

FIG. 827.—*AREA CRIBROSA[1] OF THE RENAL PAPILLA.

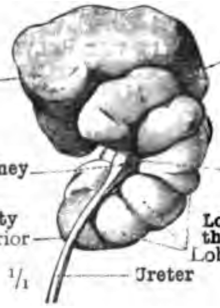


FIG. 828.—RIGHT KIDNEY AND SUPRARENAL CAPSULE[2] FROM A HUMAN FŒTUS IN THE MIDDLE OF THE SEVENTH MONTH (MONTHS OF FOUR WEEKS EACH). SEEN FROM BEHIND.

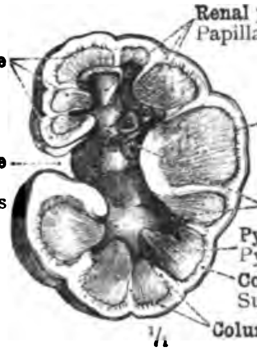


FIG. 829.—SINUS OF THE KIDNEY, DISPLAYED IN THE CORONALLY-BISECTED KIDNEY OF AN INFANT AGED THREE WEEKS

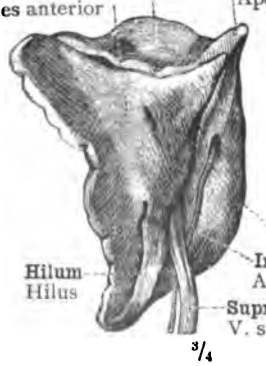


FIG. 830.—RIGHT SUPRARENAL CAPSULE,[2] SEEN FROM BEFORE.

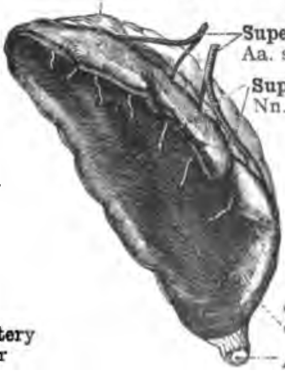

*Posterior surface[3]
*Facies posterior
Superior suprarenal arteries
Aa. suprarenales superiores
Suprarenal nerves
Nn. suprarenales
3/4
*Base[3]
*Basis
Accessory suprarenal capsule
Glandula suprarenalis accessoria (var.)

FIG. 831.—LEFT SUPRARENAL CAPSULE,[2] SEEN FROM BEHIND.

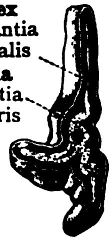


FIG. 832.—HORIZONTAL SECTION THROUGH THE LEFT SUPRARENAL CAPSULE.[2]

---

[1] See Appendix, note 51.

[2] Called also *suprarenal body*, or *adrenal*.

[3] See Appendix, note 52.

Ren—The kidney.—Glandula suprarenalis—The suprarenal capsule (*see note* [2] *above*).

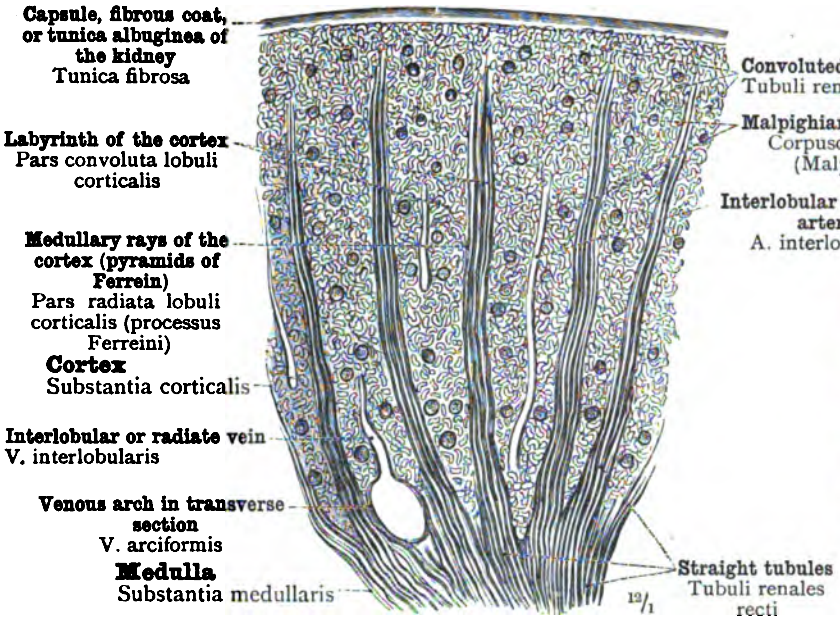

Capsule, fibrous coat, or tunica albuginea of the kidney
Tunica fibrosa
Labyrinth of the cortex
Pars convoluta lobuli corticalis
Medullary rays of the cortex (pyramids of Ferrein)
Pars radiata lobuli corticalis (processus Ferreini)
Cortex
Substantia corticalis
Interlobular or radiate vein
V. interlobularis
Venous arch in transverse section
V. arciformis
Medulla
Substantia medullaris
Convoluted tubules
Tubuli renales contorti
Malpighian corpuscles
Corpuscula renis (Malpighii)
Interlobular or radiate artery
A. interlobularis
Straight tubules
Tubuli renales recti
12/1

FIG. 833.—PART OF A SECTION THROUGH THE CORTEX OF THE KIDNEY IN THE DIRECTION OF THE STRAIGHT TUBULES.

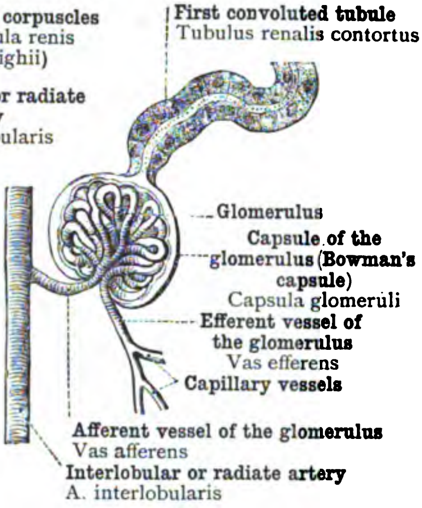
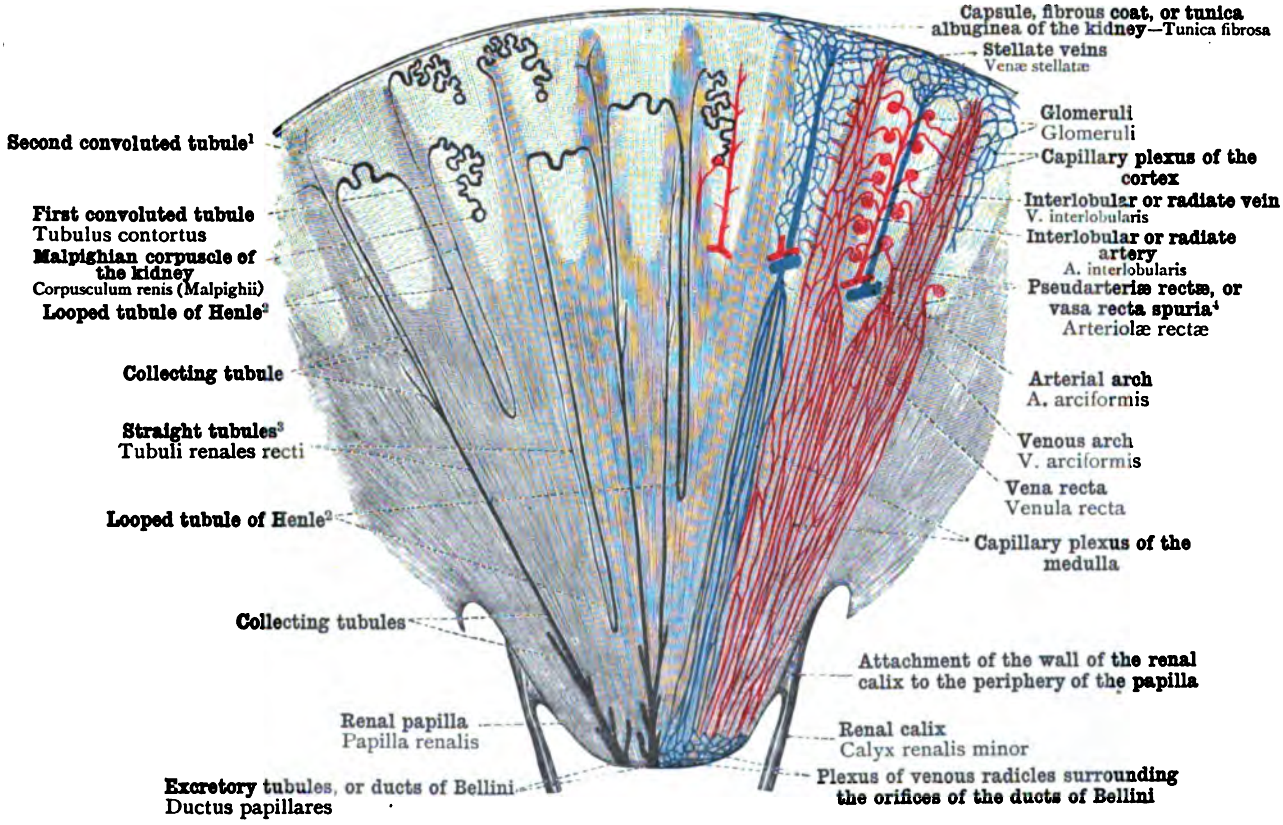

First convoluted tubule
Tubulus renalis contortus
Glomerulus
Capsule of the glomerulus (Bowman's capsule)
Capsula glomeruli
Efferent vessel of the glomerulus
Vas efferens
Capillary vessels
Afferent vessel of the glomerulus
Vas afferens
Interlobular or radiate artery
A. interlobularis

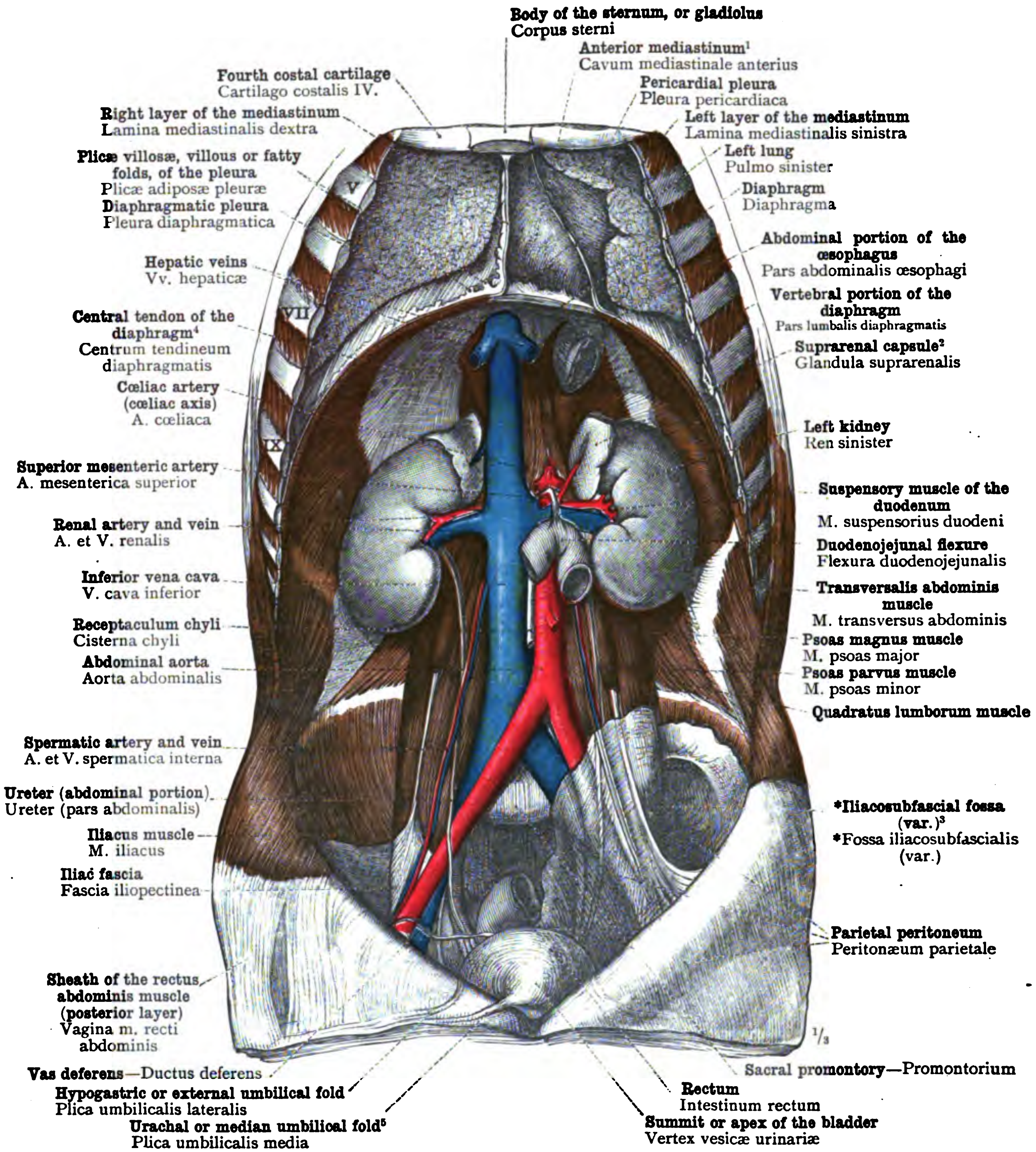
FIG. 834.—CORPUSCULUM RENIS (MALPIGHII), MALPIGHIAN CORPUSCLE OF THE KIDNEY. DIAGRAMMATIC.


Capsule, fibrous coat, or tunica albuginea of the kidney—Tunica fibrosa
Stellate veins
Venæ stellatæ
Glomeruli
Glomeruli
Capillary plexus of the cortex
Interlobular or radiate vein
V. interlobularis
Interlobular or radiate artery
A. interlobularis
Pseudarteriæ rectæ, or vasa recta spuria[4]
Arteriolæ rectæ
Arterial arch
A. arciformis
Venous arch
V. arciformis
Vena recta
Venula recta
Capillary plexus of the medulla
Attachment of the wall of the renal calix to the periphery of the papilla
Renal calix
Calyx renalis minor
Plexus of venous radicles surrounding the orifices of the ducts of Bellini
Second convoluted tubule[1]
First convoluted tubule
Tubulus contortus
Malpighian corpuscle of the kidney
Corpusculum renis (Malpighii)
Looped tubule of Henle[2]
Collecting tubule
Straight tubules[3]
Tubuli renales recti
Looped tubule of Henle[2]
Collecting tubules
Renal papilla
Papilla renalis
Excretory tubules, or ducts of Bellini
Ductus papillares

[1] See Appendix, note 53. [2] See Appendix, note 54. [3] See Appendix, note 55. [4] See Appendix, note 56.

FIG. 835.—DIAGRAMMATIC REPRESENTATION OF THE ARRANGEMENT OF THE URINIFEROUS TUBULES AND THE BLOODVESSELS IN THE KIDNEY.

Ren—The kidney.


Body of the sternum, or gladiolus
Corpus sterni
Anterior mediastinum[1]
Cavum mediastinale anterius
Pericardial pleura
Pleura pericardiaca
Left layer of the mediastinum
Lamina mediastinalis sinistra
Left lung
Pulmo sinister
Diaphragm
Diaphragma
Abdominal portion of the œsophagus
Pars abdominalis œsophagi
Vertebral portion of the diaphragm
Pars lumbalis diaphragmatis
Suprarenal capsule[2]
Glandula suprarenalis
Left kidney
Ren sinister
Suspensory muscle of the duodenum
M. suspensorius duodeni
Duodenojejunal flexure
Flexura duodenojejunalis
Transversalis abdominis muscle
M. transversus abdominis
Psoas magnus muscle
M. psoas major
Psoas parvus muscle
M. psoas minor
Quadratus lumborum muscle
*Iliacosubfascial fossa (var.)[3]
*Fossa iliacosubfascialis (var.)
Parietal peritoneum
Peritonæum parietale
1/3
Sacral promontory—Promontorium
Rectum
Intestinum rectum
Summit or apex of the bladder
Vertex vesicæ urinariæ
Urachal or median umbilical fold[5]
Plica umbilicalis media
Hypogastric or external umbilical fold
Plica umbilicalis lateralis
Vas deferens—Ductus deferens
Sheath of the rectus abdominis muscle (posterior layer)
Vagina m. recti abdominis
Iliac fascia
Fascia iliopectinea
Iliacus muscle
M. iliacus
Ureter (abdominal portion)
Ureter (pars abdominalis)
Spermatic artery and vein
A. et V. spermatica interna
Abdominal aorta
Aorta abdominalis
Receptaculum chyli
Cisterna chyli
Inferior vena cava
V. cava inferior
Renal artery and vein
A. et V. renalis
Superior mesenteric artery
A. mesenterica superior
Cœliac artery (cœliac axis)
A. cœliaca
Central tendon of the diaphragm[4]
Centrum tendineum diaphragmatis
Hepatic veins
Vv. hepaticæ
Plicæ villosæ, villous or fatty folds, of the pleura
Plicæ adiposæ pleuræ
Diaphragmatic pleura
Pleura diaphragmatica
Right layer of the mediastinum
Lamina mediastinalis dextra
Fourth costal cartilage
Cartilago costalis IV.
V
VII
IX

[1] See note [2] to p. 410 and Appendix, note 24.

[2] Called also *suprarenal body*, or *adrenal.*

[3] See Appendix, note 57.

[4] Called also the *trefoil* or *cordiform tendon* of the diaphragm.

[5] Also called the *superior false ligament*, or *suspensory ligament, of the bladder.*

FIG. 836.—POSTERIOR WALL OF THE ABDOMINAL CAVITY, AS SEEN AFTER THE REMOVAL OF THE PARIETAL PERITONEUM; SPATIUM RETROPERITONEALE, THE RETROPERITONEAL SPACE. POSITION OF THE KIDNEYS AND THE SUPRARENAL CAPSULES (*see note* [2] *above*). ABDOMINAL PORTION OF THE ŒSOPHAGUS. MUSCULUS SUSPENSORIUS DUODENI, THE SUSPENSORY MUSCLE OF THE DUODENUM.

In the left iliac fossa the parietal peritoneum has been left attached, in order to display the *iliacosubfascial fossa of the peritoneum, which exists in this specimen. (Compare with this figure Fig. 809, p. 479.)

Retroperitoneal Space and Topographical Anatomy of the Kidney.

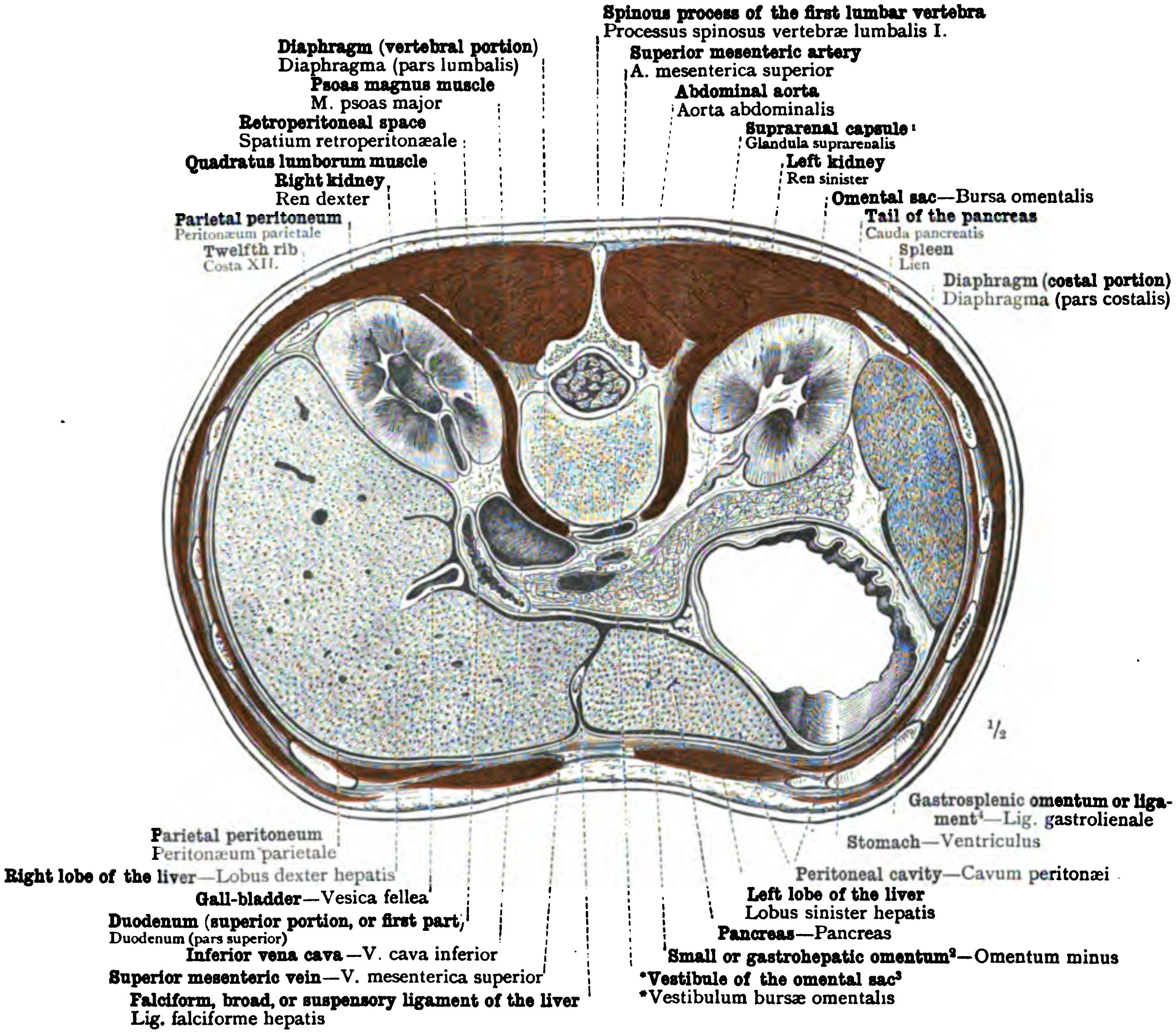

Spinous process of the first lumbar vertebra
Processus spinosus vertebræ lumbalis I.
Superior mesenteric artery
A. mesenterica superior
Abdominal aorta
Aorta abdominalis
Suprarenal capsule[1]
Glandula suprarenalis
Left kidney
Ren sinister
Omental sac—Bursa omentalis
Tail of the pancreas
Cauda pancreatis
Spleen
Lien
Diaphragm (costal portion)
Diaphragma (pars costalis)
Diaphragm (vertebral portion)
Diaphragma (pars lumbalis)
Psoas magnus muscle
M. psoas major
Retroperitoneal space
Spatium retroperitonæale
Quadratus lumborum muscle
Right kidney
Ren dexter
Parietal peritoneum
Peritonæum parietale
Twelfth rib
Costa XII.
1/2
Gastrosplenic omentum or ligament[4]—Lig. gastrolienale
Stomach—Ventriculus
Peritoneal cavity—Cavum peritonæi
Left lobe of the liver
Lobus sinister hepatis
Pancreas—Pancreas
Small or gastrohepatic omentum[2]—Omentum minus
*[3]**Vestibule of the omental sac**
*Vestibulum bursæ omentalis
Parietal peritoneum
Peritonæum parietale
Right lobe of the liver—Lobus dexter hepatis
Gall-bladder—Vesica fellea
Duodenum (superior portion, or first part)
Duodenum (pars superior)
Inferior vena cava—V. cava inferior
Superior mesenteric vein—V. mesenterica superior
Falciform, broad, or suspensory ligament of the liver
Lig. falciforme hepatis

FIG. 837.—HORIZONTAL SECTION THROUGH THE TRUNK, PASSING THROUGH THE BODY OF THE FIRST LUMBAR VERTEBRA CLOSE TO ITS UPPER SURFACE. THE POSITION OF THE KIDNEYS IN RELATION TO THE ABDOMINAL WALL, THE LIVER, THE SPLEEN, AND THE PANCREAS.

The right kidney is divided above, the left below, the middle of its vertical extent. The stomach is divided below the middle of its body; the pancreas, near its inferior surface; the spleen, near its inferior extremity. In the hepatic region the section crosses the umbilical fissure (fossa venæ umbilicalis) and the body of the gall-bladder. Close to the latter the superior or first part of the duodenum is seen. (Compare this section with those shown in Figs. 810 and 811.)

---

[1] Also known as the *suprarenal body*, or *adrenal*. [2] See Appendix, note 43. [3] See Appendix, note 44.

[4] The *gastrosplenic omentum* is connected below with the *great omentum*, and is often regarded as a part of it.—TR.

Topographical Anatomy of the Kidney.

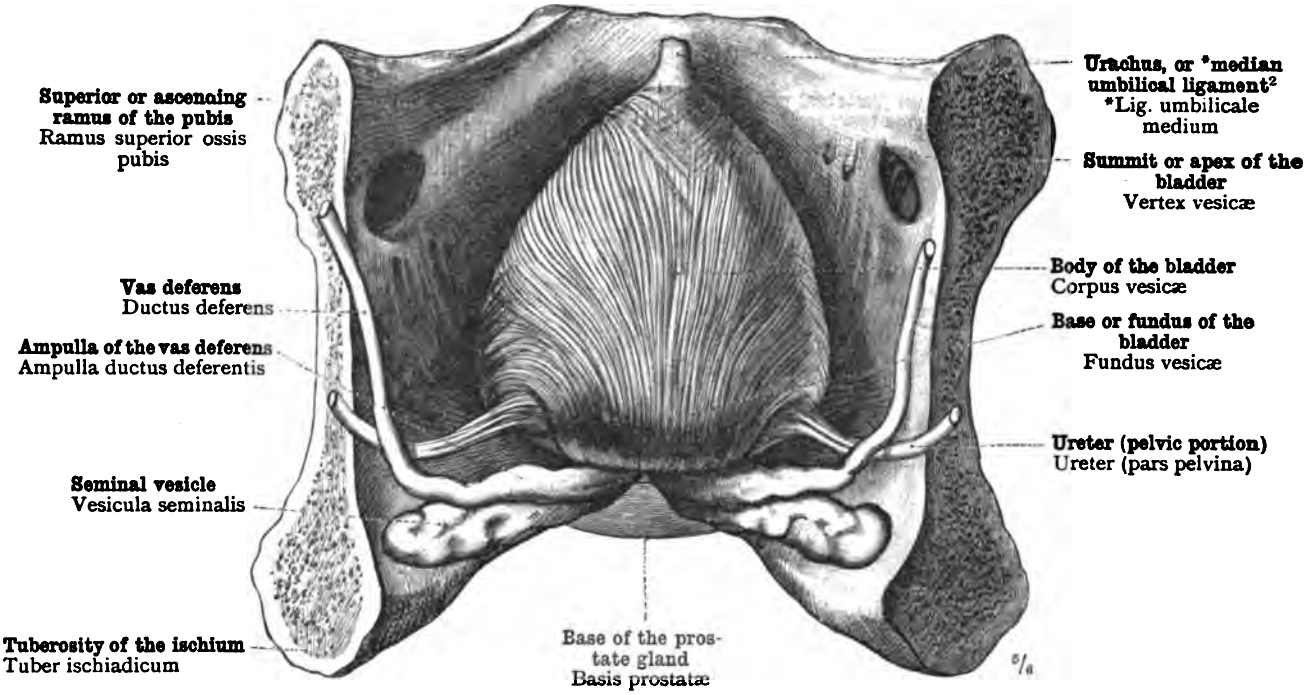

Superior or ascending ramus of the pubis
Ramus superior ossis pubis
Vas deferens
Ductus deferens
Ampulla of the vas deferens
Ampulla ductus deferentis
Seminal vesicle
Vesicula seminalis
Tuberosity of the ischium
Tuber ischiadicum
Base of the prostate gland
Basis prostatæ
Urachus, or *median umbilical ligament[2]
*Lig. umbilicale medium
Summit or apex of the bladder
Vertex vesicæ
Body of the bladder
Corpus vesicæ
Base or fundus of the bladder
Fundus vesicæ
Ureter (pelvic portion)
Ureter (pars pelvina)
5/8

FIG. 838.—EXTERNAL LAYER OF THE MUSCULAR COAT OF THE BLADDER (STRATUM EXTERNUM TUNICÆ MUSCULARIS VESICÆ URINARIÆ). THE CONTRACTED MALE BLADDER IN ITS NATURAL POSITION, WITH THE PELVIC PORTION OF THE URETER, THE VAS DEFERENS, AND THE SEMINAL VESICLE. SEEN FROM BEHIND.

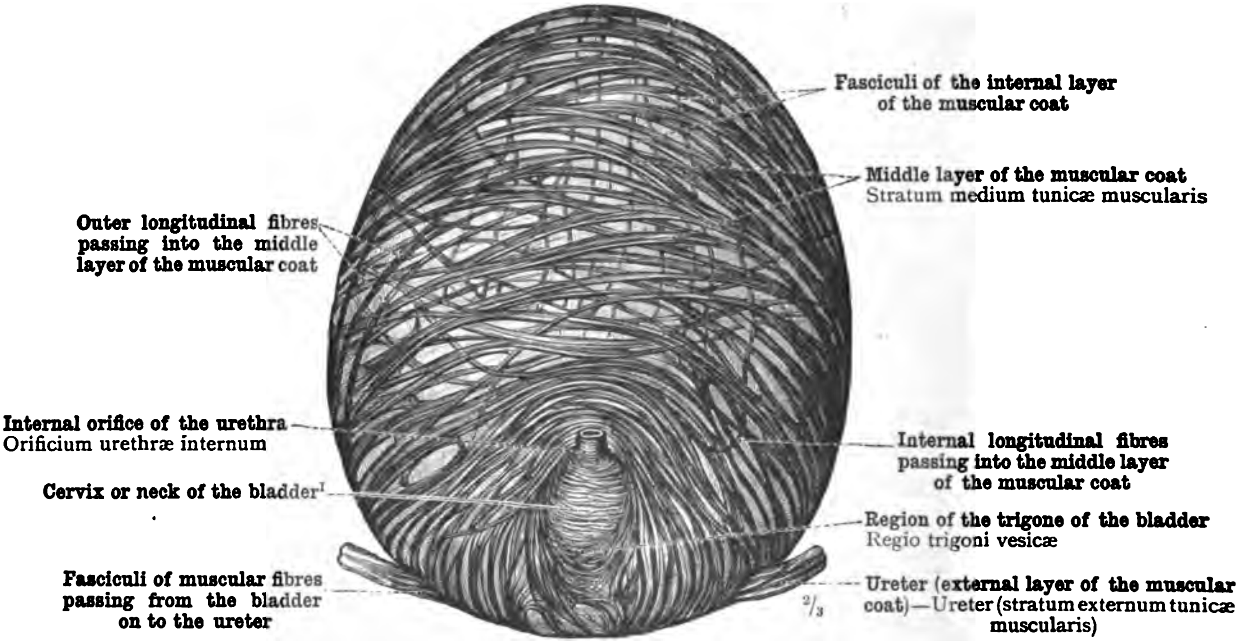

Fasciculi of the internal layer of the muscular coat
Middle layer of the muscular coat
Stratum medium tunicæ muscularis
Outer longitudinal fibres passing into the middle layer of the muscular coat
Internal orifice of the urethra
Orificium urethræ internum
Cervix or neck of the bladder[1]
Internal longitudinal fibres passing into the middle layer of the muscular coat
Region of the trigone of the bladder
Regio trigoni vesicæ
Fasciculi of muscular fibres passing from the bladder on to the ureter
Ureter (external layer of the muscular coat)—Ureter (stratum externum tunicæ muscularis)
2/3

FIG. 839.—MIDDLE AND INTERNAL LAYERS OF THE MUSCULAR COAT OF THE BLADDER (STRATUM MEDIUM ET STRATUM INTERNUM TUNICÆ MUSCULARIS VESICÆ URINARIÆ), SEEN FROM BEFORE AND BELOW IN THE MODERATELY-DISTENDED BLADDER.

---

[1] See Appendix, note 58.

[2] See note 3 to p. 387 in Part III.

Vesica urinaria—Urinary bladder.

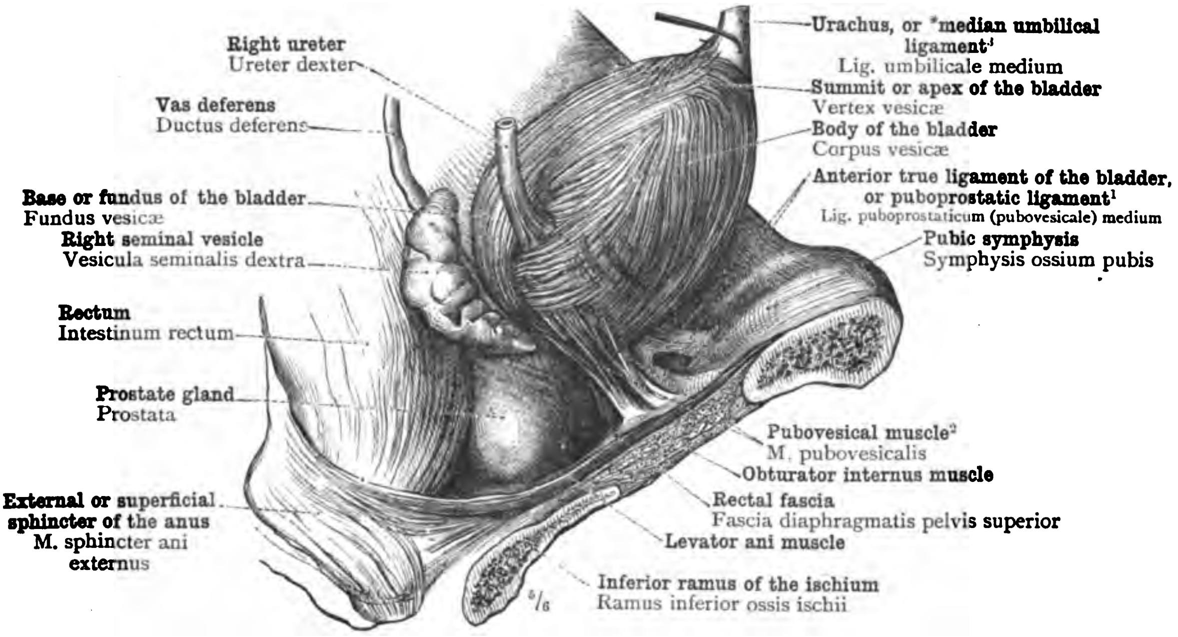

Right ureter
Ureter dexter
Vas deferens
Ductus deferens
Base or fundus of the bladder
Fundus vesicæ
Right seminal vesicle
Vesicula seminalis dextra
Rectum
Intestinum rectum
Prostate gland
Prostata
External or superficial sphincter of the anus
M. sphincter ani externus
Urachus, or *median umbilical ligament[3]
Lig. umbilicale medium
Summit or apex of the bladder
Vertex vesicæ
Body of the bladder
Corpus vesicæ
Anterior true ligament of the bladder, or puboprostatic ligament[1]
Lig. puboprostaticum (pubovesicale) medium
Pubic symphysis
Symphysis ossium pubis
Pubovesical muscle[2]
M. pubovesicalis
Obturator internus muscle
Rectal fascia
Fascia diaphragmatis pelvis superior
Levator ani muscle
Inferior ramus of the ischium
Ramus inferior ossis ischii
5/6

FIG. 840.—EXTERNAL LAYER OF THE MUSCULAR COAT (STRATUM EXTERNUM TUNICÆ MUSCULARIS) OF THE CONTRACTED BLADDER. RELATIONS OF THE SEMINAL VESICLE AND THE PROSTATE GLAND TO THE BLADDER AND THE RECTUM. SEEN FROM THE RIGHT SIDE.

The prostate gland is hypertrophied.

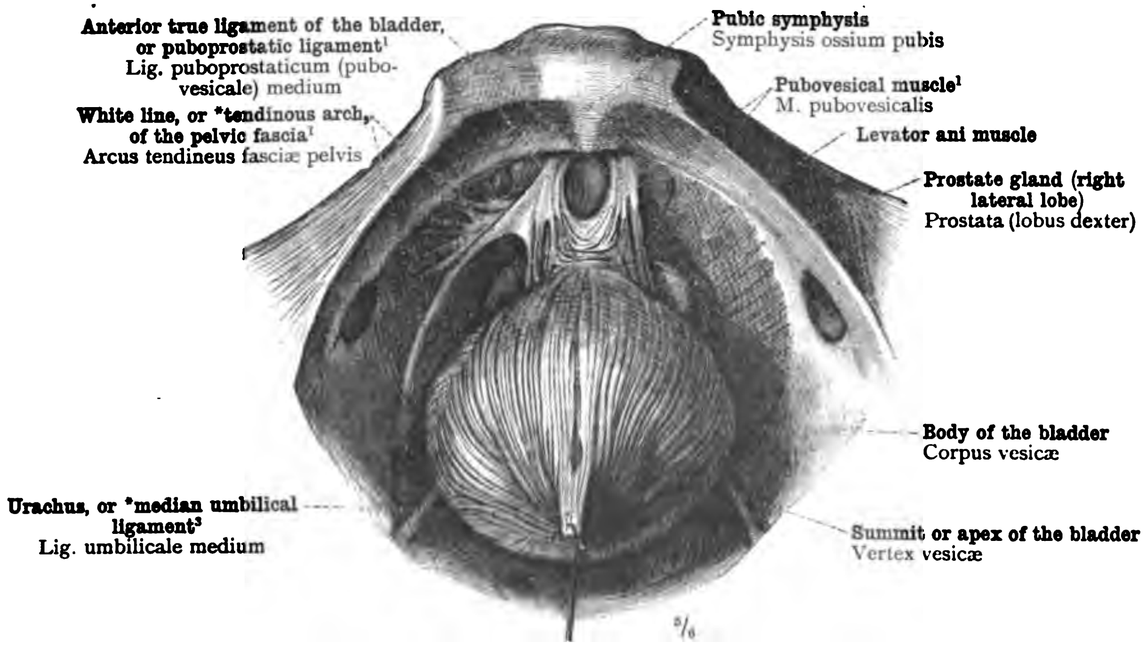

Anterior true ligament of the bladder, or puboprostatic ligament[1]
Lig. puboprostaticum (pubovesicale) medium
White line, or *tendinous arch, of the pelvic fascia[1]
Arcus tendineus fasciæ pelvis
Urachus, or *median umbilical ligament[3]
Lig. umbilicale medium
Pubic symphysis
Symphysis ossium pubis
Pubovesical muscle[1]
M. pubovesicalis
Levator ani muscle
Prostate gland (right lateral lobe)
Prostata (lobus dexter)
Body of the bladder
Corpus vesicæ
Summit or apex of the bladder
Vertex vesicæ
5/6

FIG. 841.—EXTERNAL LAYER OF THE MUSCULAR COAT (STRATUM EXTERNUM TUNICÆ MUSCULARIS) OF THE CONTRACTED BLADDER, SEEN FROM BEFORE AND ABOVE.

The bladder has been drawn as far as possible backwards away from the pubes. On the right side the levator ani muscle is exposed; on the left side the rectal fascia[1] covering upper or pelvic surface has been left intact.

[1] See Appendix, note 59.

[2] See Appendix, note 60.

[3] See note 3 to p. 387 in Part III.

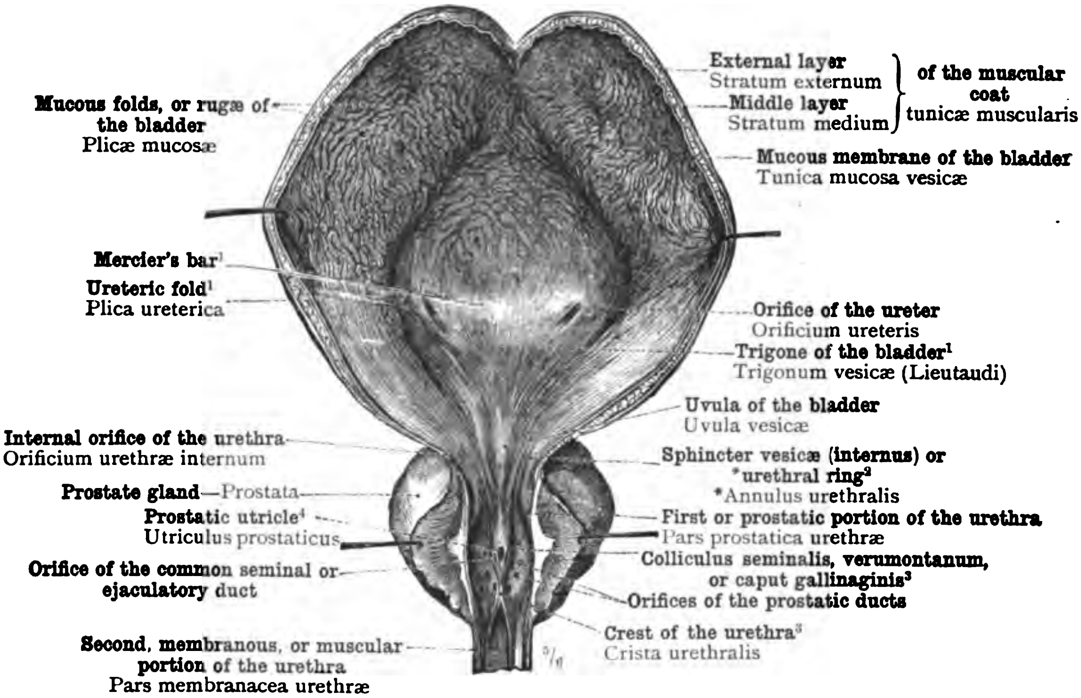

Mucous folds, or rugæ of the bladder
Plicæ mucosæ
Mercier's bar[1]
Ureteric fold[1]
Plica ureterica
Internal orifice of the urethra
Orificium urethræ internum
Prostate gland—Prostata
Prostatic utricle[4]
Utriculus prostaticus
Orifice of the common seminal or ejaculatory duct
Second, membranous, or muscular portion of the urethra
Pars membranacea urethræ
External layer
Stratum externum
Middle layer
Stratum medium
of the muscular coat
tunicæ muscularis
Mucous membrane of the bladder
Tunica mucosa vesicæ
Orifice of the ureter
Orificium ureteris
Trigone of the bladder[1]
Trigonum vesicæ (Lieutaudi)
Uvula of the bladder
Uvula vesicæ
Sphincter vesicæ (internus) or *urethral ring[2]
*Annulus urethralis
First or prostatic portion of the urethra
Pars prostatica urethræ
Colliculus seminalis, verumontanum, or caput gallinaginis[3]
Orifices of the prostatic ducts
Crest of the urethra[3]
Crista urethralis
5/6

FIG. 842.—THE MALE BLADDER AND THE FIRST OR PROSTATIC PORTION OF THE URETHRA, WITH THE PROSTATE GLAND, OPENED FROM BEFORE.

The bladder was in a moderately distended state.

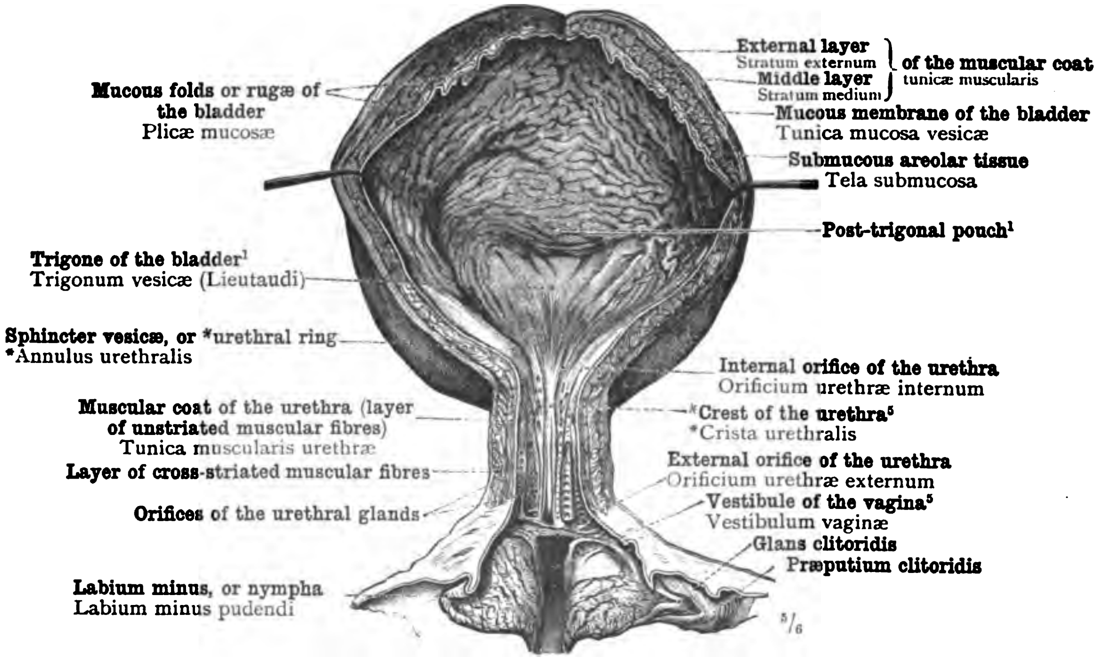

Mucous folds or rugæ of the bladder
Plicæ mucosæ
Trigone of the bladder[1]
Trigonum vesicæ (Lieutaudi)
Sphincter vesicæ, or *urethral ring
*Annulus urethralis
Muscular coat of the urethra (layer of unstriated muscular fibres)
Tunica muscularis urethræ
Layer of cross-striated muscular fibres
Orifices of the urethral glands
Labium minus, or nympha
Labium minus pudendi
External layer
Stratum externum
Middle layer
Stratum medium
of the muscular coat
tunicæ muscularis
Mucous membrane of the bladder
Tunica mucosa vesicæ
Submucous areolar tissue
Tela submucosa
Post-trigonal pouch[1]
Internal orifice of the urethra
Orificium urethræ internum
*Crest of the urethra[5]
*Crista urethralis
External orifice of the urethra
Orificium urethræ externum
Vestibule of the vagina[5]
Vestibulum vaginæ
Glans clitoridis
Præputium clitoridis
5/6

FIG. 843.—THE FEMALE BLADDER AND URETHRA, OPENED FROM BEFORE.

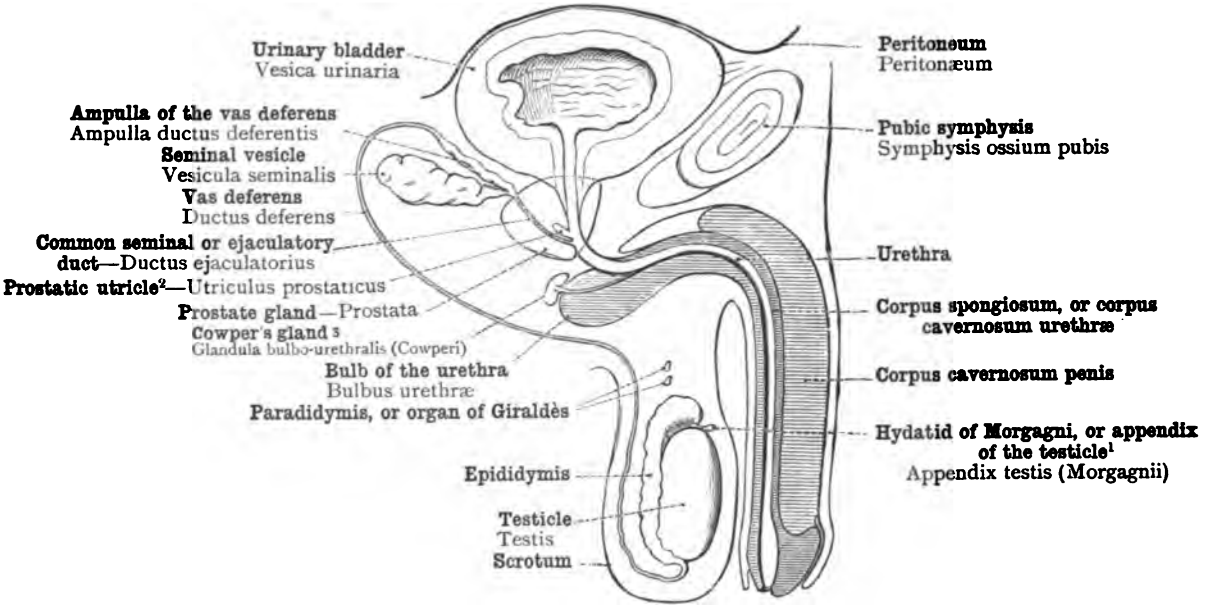
The bladder was nearly empty, and contracted.

[1] See Appendix, note 61.
[2] See Appendix, note 62
[3] See Appendix, note 63.
[4] See Appendix, note 64.
[5] See Appendix, note 65.

Vesica urinaria—Urinary bladder.

ORGANA GENITALIA VIRILIA

MALE REPRODUCTIVE ORGANS

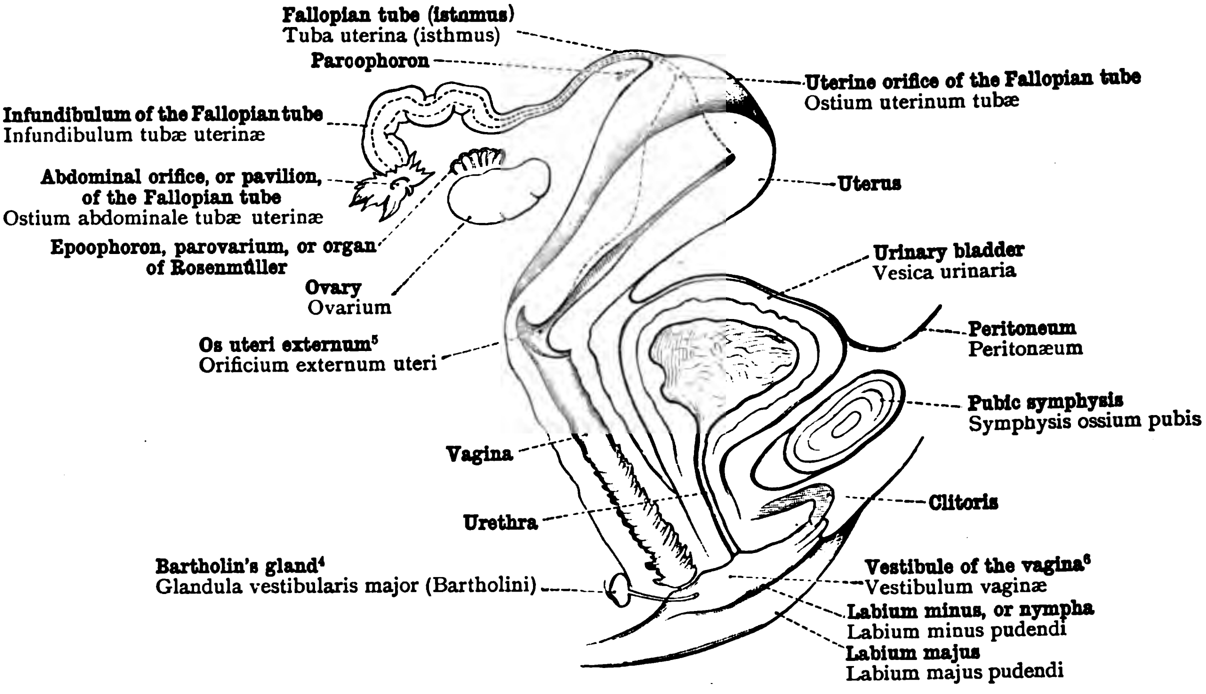

Urinary bladder
Vesica urinaria
Ampulla of the vas deferens
Ampulla ductus deferentis
Seminal vesicle
Vesicula seminalis
Vas deferens
Ductus deferens
Common seminal or ejaculatory duct—Ductus ejaculatorius
Prostatic utricle[2]—Utriculus prostaticus
Prostate gland—Prostata
Cowper's gland[3]
Glandula bulbo-urethralis (Cowperi)
Bulb of the urethra
Bulbus urethræ
Paradidymis, or organ of Giraldès
Epididymis
Testicle
Testis
Scrotum
Peritoneum
Peritonæum
Pubic symphysis
Symphysis ossium pubis
Urethra
Corpus spongiosum, or corpus cavernosum urethræ
Corpus cavernosum penis
Hydatid of Morgagni, or appendix of the testicle[1]
Appendix testis (Morgagnii)

[1] See Appendix, note 69.

[2] Known also as the *prostatic sinus*, *prostatic vesicle*, *sinus pocularis*, and *uterus masculinus*.

[3] Known also as the *suburethral gland.*

FIG. 844.—DIAGRAMMATIC REPRESENTATION OF THE MALE REPRODUCTIVE ORGANS AND THEIR RELATIONS TO THE BLADDER AND THE URETHRA. LATERAL VIEW.



[4] See Appendix, note 66.

[5] See Appendix, note 67.

[6] See Appendix, note 90.

FIG. 845.—DIAGRAMMATIC REPRESENTATION OF THE FEMALE REPRODUCTIVE ORGANS AND THEIR RELATIONS TO THE BLADDER AND URETHRA. LATERAL VIEW.

Comparative Diagrams of the Male and Female Reproductive Organs.

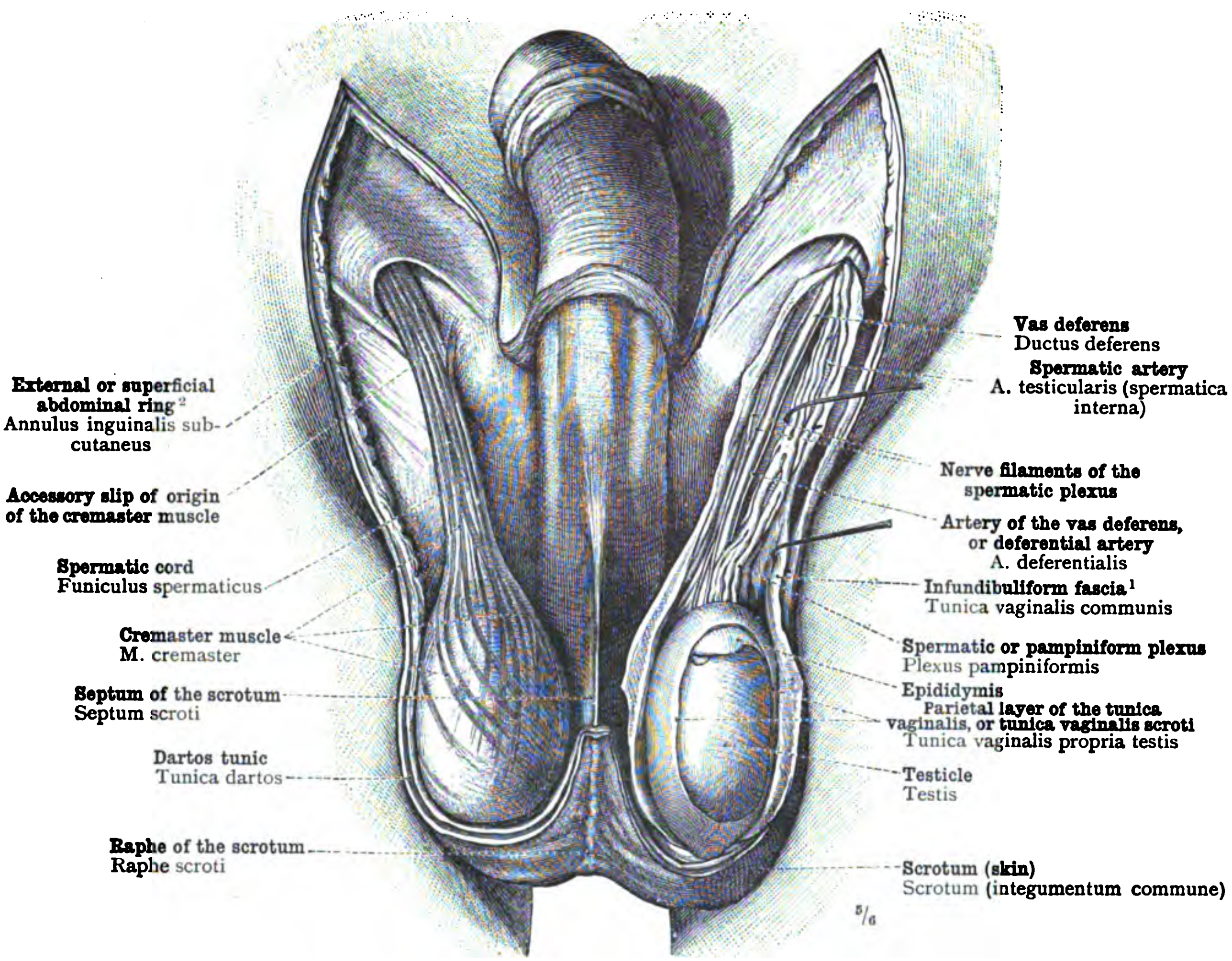

Vas deferens
Ductus deferens
Spermatic artery
A. testicularis (spermatica interna)
External or superficial abdominal ring[2]
Annulus inguinalis subcutaneus
Nerve filaments of the spermatic plexus
Accessory slip of origin of the cremaster muscle
Artery of the vas deferens, or deferential artery
A. deferentialis
Spermatic cord
Funiculus spermaticus
Infundibuliform fascia[1]
Tunica vaginalis communis
Cremaster muscle
M. cremaster
Spermatic or pampiniform plexus
Plexus pampiniformis
Epididymis
Septum of the scrotum
Septum scroti
Parietal layer of the tunica vaginalis, or tunica vaginalis scroti
Tunica vaginalis propria testis
Dartos tunic
Tunica dartos
Testicle
Testis
Raphe of the scrotum
Raphe scroti
Scrotum (skin)
Scrotum (integumentum commune)
5/6

FIG. 846.—THE SCROTUM. THE PENIS HAS BEEN TURNED UPWARDS, AND THE ANTERIOR WALL OF THE SCROTUM HAS BEEN REMOVED. ON THE RIGHT SIDE, THE SPERMATIC CORD, THE INFUNDIBULIFORM FASCIA, AND THE CREMASTER MUSCLE, ARE DISPLAYED; ON THE LEFT SIDE, THE INFUNDIBULIFORM FASCIA HAS BEEN DIVIDED BY A LONGITUDINAL INCISION PASSING ALONG THE FRONT OF THE CORD AND THE TESTICLE, AND A PORTION OF THE TUNICA VAGINALIS SCROTI (PARIETAL LAYER OF THE TUNICA VAGINALIS) HAS BEEN REMOVED, TO DISPLAY THE TESTICLE AND A PORTION OF THE HEAD OR GLOBUS MAJOR OF THE EPIDIDYMIS, WHICH ARE COVERED BY THE TUNICA VAGINALIS TESTIS, OR VISCERAL LAYER OF THE TUNICA VAGINALIS.

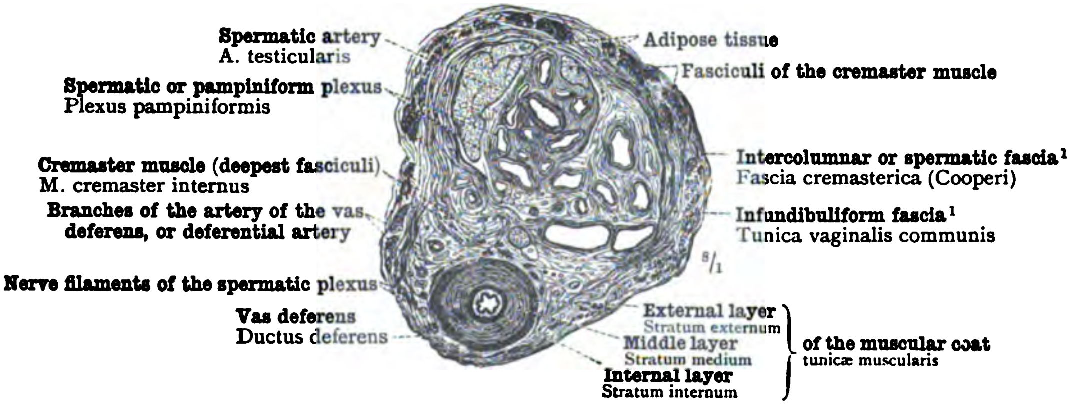

Spermatic artery
A. testicularis
Adipose tissue
Fasciculi of the cremaster muscle
Spermatic or pampiniform plexus
Plexus pampiniformis
Intercolumnar or spermatic fascia[1]
Fascia cremasterica (Cooperi)
Cremaster muscle (deepest fasciculi)
M. cremaster internus
Branches of the artery of the vas deferens, or deferential artery
Infundibuliform fascia[1]
Tunica vaginalis communis
8/1
Nerve filaments of the spermatic plexus
Vas deferens
Ductus deferens
External layer
Stratum externum
Middle layer
Stratum medium
Internal layer
Stratum internum
of the muscular coat
tunicæ muscularis

FIG. 847.—TRANSVERSE SECTION THROUGH THE SPERMATIC CORD NOT FAR FROM ITS EMERGENCE FROM THE INGUINAL CANAL.

---

[1] See Appendix, note 68.

[2] Known also as the *external inguinal aperture.*

Scrotum—The scrotum.—Funiculus spermaticus—The spermatic cord.

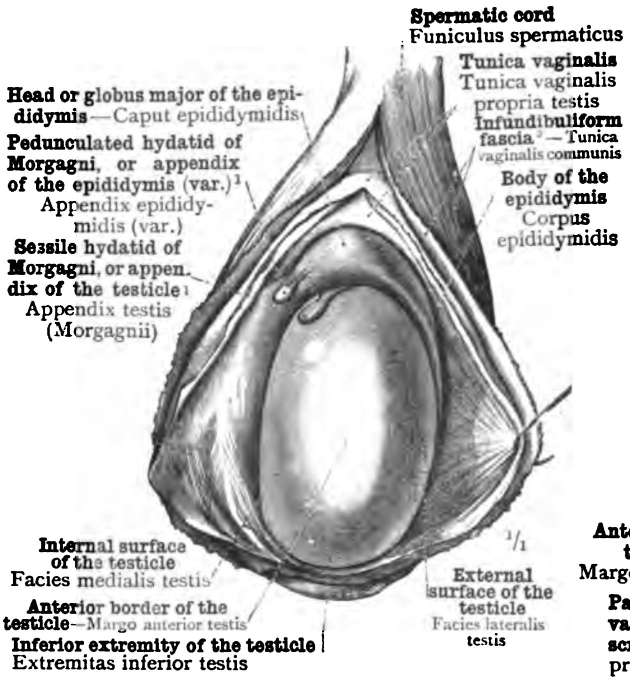

Spermatic cord
Funiculus spermaticus
Tunica vaginalis
Tunica vaginalis propria testis
Infundibuliform fascia[2]—Tunica vaginalis communis
Body of the epididymis
Corpus epididymidis
Head or globus major of the epididymis—Caput epididymidis
Pedunculated hydatid of Morgagni, or appendix of the epididymis (var.)[1]
Appendix epididymidis (var.)
Sessile hydatid of Morgagni, or appendix of the testicle[1]
Appendix testis (Morgagnii)
1/1
Internal surface of the testicle
Facies medialis testis
Anterior border of the testicle—Margo anterior testis
Inferior extremity of the testicle
Extremitas inferior testis
External surface of the testicle
Facies lateralis testis

FIG. 848.—THE LEFT TESTICLE WITH THE EPIDIDYMIS, THE INFUNDIBULIFORM FASCIA AND THE PARIETAL LAYER OF THE TUNICA VAGINALIS (TUNICA VAGINALIS SCROTI) HAVING BEEN DIVIDED. SEEN FROM BEFORE.

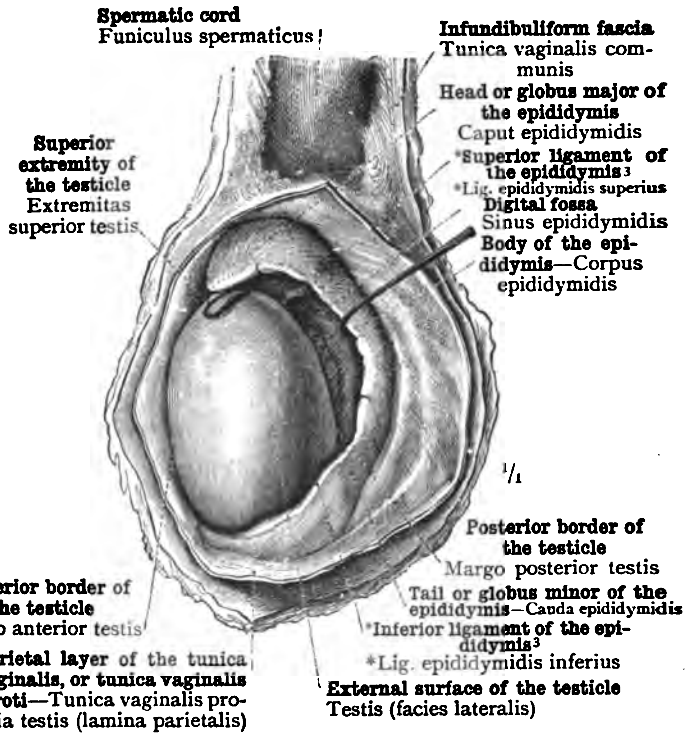

Spermatic cord
Funiculus spermaticus
Infundibuliform fascia
Tunica vaginalis communis
Head or globus major of the epididymis
Caput epididymidis
***Superior ligament of the epididymis**[3]
*Lig. epididymidis superius
Digital fossa
Sinus epididymidis
Body of the epididymis—Corpus epididymidis
Superior extremity of the testicle
Extremitas superior testis
1/1
Posterior border of the testicle
Margo posterior testis
Tail or globus minor of the epididymis—Cauda epididymidis
***Inferior ligament of the epididymis**[3]
*Lig. epididymidis inferius
Anterior border of the testicle
Margo anterior testis
Parietal layer of the tunica vaginalis, or tunica vaginalis scroti—Tunica vaginalis propria testis (lamina parietalis)
External surface of the testicle
Testis (facies lateralis)

FIG. 849.—THE LEFT TESTICLE WITH THE EPIDIDYMIS, THE LATTER BEING DRAWN A LITTLE BACKWARDS. THE INFUNDIBULIFORM FASCIA AND THE PARIETAL LAYER OF THE TUNICA VAGINALIS (TUNICA VAGINALIS SCROTI) HAVE BEEN DIVIDED. SEEN FROM THE OUTER SIDE.

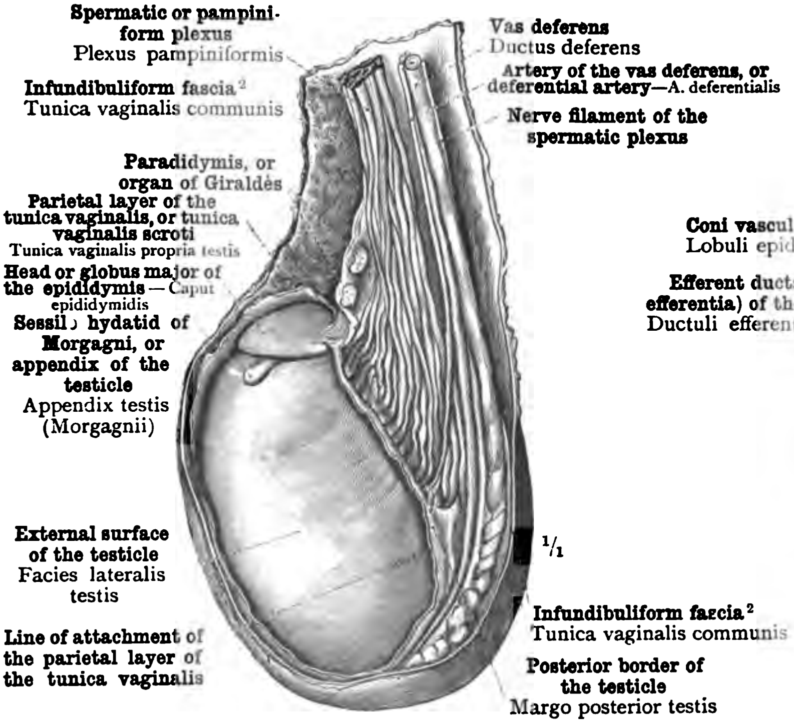

Spermatic or pampiniform plexus
Plexus pampiniformis
Infundibuliform fascia[2]
Tunica vaginalis communis
Paradidymis, or organ of Giraldès
Parietal layer of the tunica vaginalis, or tunica vaginalis scroti
Tunica vaginalis propria testis
Head or globus major of the epididymis—Caput epididymidis
Sessile hydatid of Morgagni, or appendix of the testicle
Appendix testis (Morgagnii)
External surface of the testicle
Facies lateralis testis
Line of attachment of the parietal layer of the tunica vaginalis
Vas deferens
Ductus deferens
Artery of the vas deferens, or deferential artery—A. deferentialis
Nerve filament of the spermatic plexus
1/1
Infundibuliform fascia[2]
Tunica vaginalis communis
Posterior border of the testicle
Margo posterior testis

FIG. 850.—THE TESTICLE WITH THE PAMPINIFORM PLEXUS, THE SEROUS SAC OF THE TESTICLE (TUNICA VAGINALIS) HAVING BEEN OPENED FROM THE INNER SIDE.

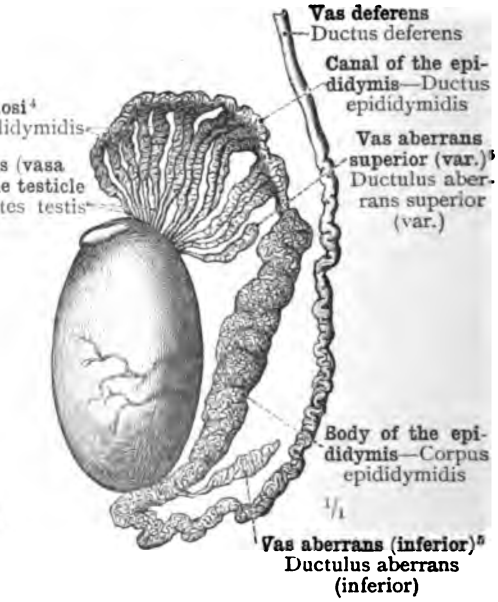

Vas deferens
Ductus deferens
Canal of the epididymis—Ductus epididymidis
Vas aberrans superior (var.)[5]
Ductulus aberrans superior (var.)
Coni vasculosi[4]
Lobuli epididymidis
Efferent ducts (vasa efferentia) of the testicle
Ductuli efferentes testis
Body of the epididymis—Corpus epididymidis
1/1
Vas aberrans (inferior)[5]
Ductulus aberrans (inferior)

FIG. 851.—THE TESTICLE WITH ITS EFFERENT DUCTS AND THE CANAL OF THE EPIDIDYMIS DISSECTED OUT. SEEN FROM THE OUTER SIDE.

---

[1] See Appendix, note 69. [2] See Appendix, note 68. [3] See Appendix, note 70. [4] See Appendix, note 73. [5] See Appendix, note 71.

Testis—The testicle.—Epididymis—The epididymis.

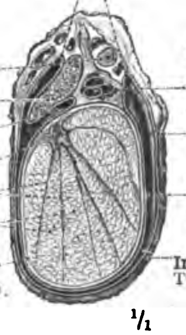

Reflection of the parietal layer of the tunica vaginalis (tunica vaginalis scroti) into the visceral layer of the tunica vaginalis (tunica vaginalis testis)
Vas deferens Ductus deferens
Body of the epididymis Corpus epididymidis
Digital fossa Sinus epididymidis
Mediastinum testis, or corpus Highmori
Septa of the testicle Septula testis
Lobules of the testicle Lobuli testis
Tunica albuginea or fibrous capsule of the testicle—Tunica albuginea testis
Spermatic or pampiniform plexus Plexus pampiniformis
Parietal layer of the tunica vaginalis or tunica vaginalis scroti Tunica vaginalis propria testis (lamina parietalis)
Visceral layer of the tunica vaginalis, or tunica vaginalis testis Tunica vaginalis propria testis (lamina visceralis)
Infundibuliform fascia Tunica vaginalis communis
¹/₁

FIG. 852.—HORIZONTAL SECTION THROUGH THE RIGHT TESTICLE AND THE EPIDIDYMIS, AND THROUGH THE TUNICA VAGINALIS AND THE INFUNDIBULIFORM FASCIA.

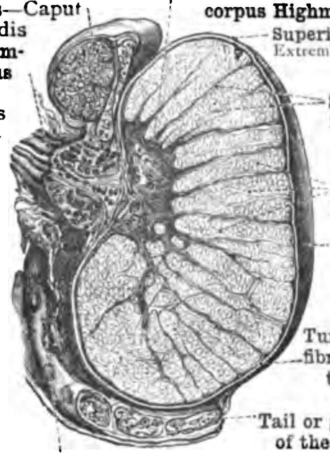

Head or globus major of the epididymis—Caput epididymidis
Spermatic or pampiniform plexus Plexus pampiniformis
Mediastinum testis, or corpus Highmori
Superior extremity Extremitas superior
Septa of the testicle Septula testis
Lobules of the testicle Lobuli testis
Anterior border of the testicle Margo anterior testis
Tunica albuginea or fibrous capsule of the testicle—Tunica albuginea testis
Tail or globus minor of the epididymis Cauda epididymidis
Body of the epididymis Corpus epididymidis
¹/₁

FIG. 853.—SAGITTAL SECTION THROUGH THE MIDDLE OF THE RIGHT TESTICLE. THE MEDIASTINUM TESTIS, OR CORPUS HIGHMORI.

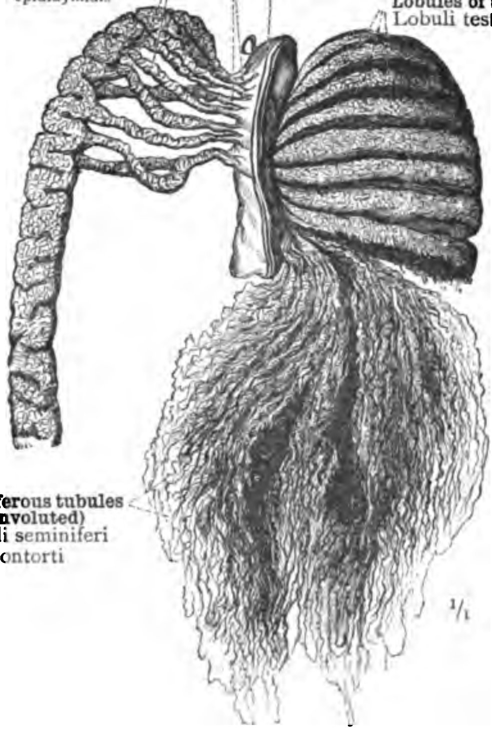
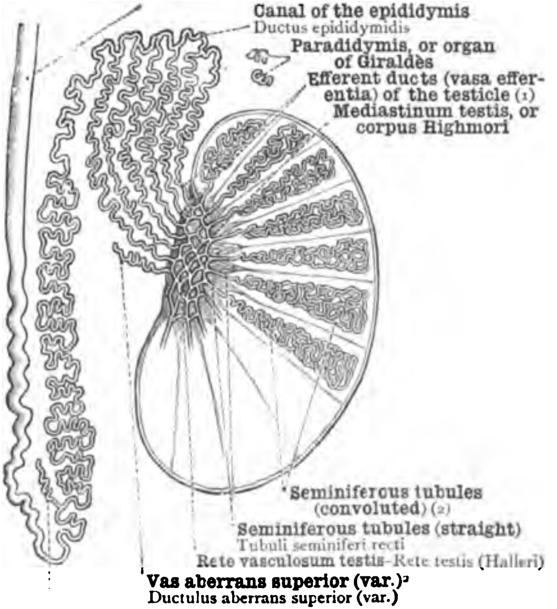

Efferent ducts (vasa efferentia) of the testicle—Ductuli efferentes
Coni vasculosi¹—Lobuli epididymidis
Tunica albuginea or fibrous capsule of the testicle Tunica albuginea testis
Lobules of the testicle Lobuli testis
Seminiferous tubules (convoluted) Tubuli seminiferi contorti
¹/₁

FIG. 854.—THE PARENCHYMA OF THE TESTICLE, PARTIALLY ISOLATED BY MACERATION IN HYDROCHLORIC ACID SOLUTION.


Vas deferens Ductus deferens
Canal of the epididymis Ductus epididymidis
Paradidymis, or organ of Giraldès
Efferent ducts (vasa efferentia) of the testicle (1)
Mediastinum testis, or corpus Highmori
Seminiferous tubules (convoluted) (2)
Seminiferous tubules (straight) Tubuli seminiferi recti
Rete vasculosum testis—Rete testis (Halleri)
Vas aberrans superior (var.)² Ductulus aberrans superior (var.)
Vas aberrans (inferior)² Ductulus aberrans (inferior)

(1) Ductuli efferentes (2) Tubuli seminiferi contorti

FIG. 855.—DIAGRAMMATIC REPRESENTATION OF THE COURSE AND CONNEXIONS OF THE TUBULES OF THE TESTICLE AND THE EPIDIDYMIS.

---

[1] See Appendix, note 72.

[2] See Appendix, note 71.

Testis—The testicle.—Epididymis—The epididymis.

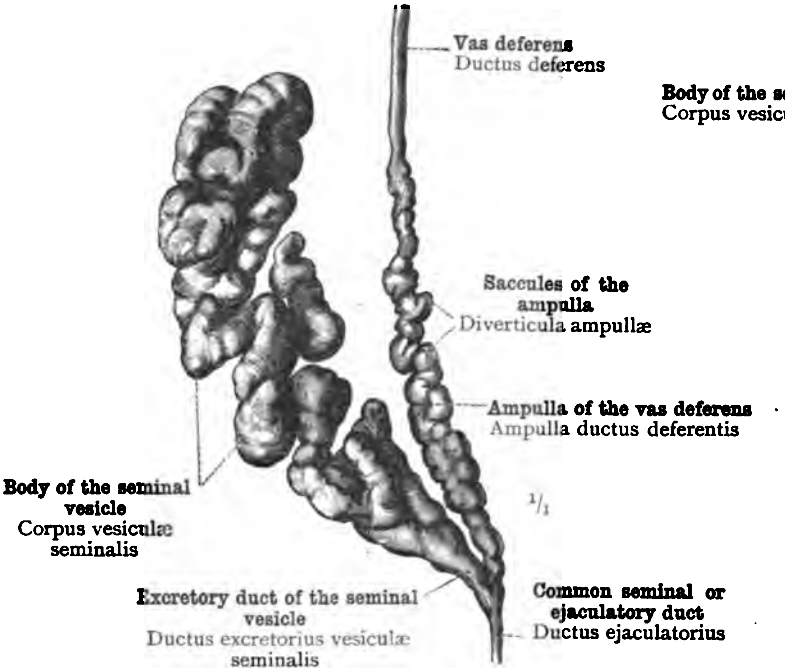

Vas deferens
Ductus deferens
Saccules of the ampulla
Diverticula ampullæ
Ampulla of the vas deferens
Ampulla ductus deferentis
1/1
Body of the seminal vesicle
Corpus vesiculæ seminalis
Excretory duct of the seminal vesicle
Ductus excretorius vesiculæ seminalis
Common seminal or ejaculatory duct
Ductus ejaculatorius

FIG. 856.—CAST OF THE INTERIOR OF THE RIGHT SEMINAL VESICLE, THE AMPULLA OF THE VAS DEFERENS, AND THE COMMON SEMINAL OR EJACULATORY DUCT.

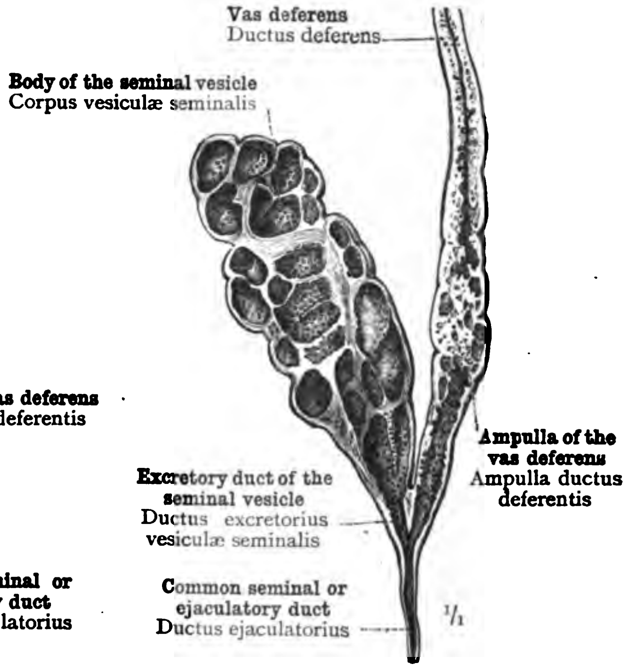
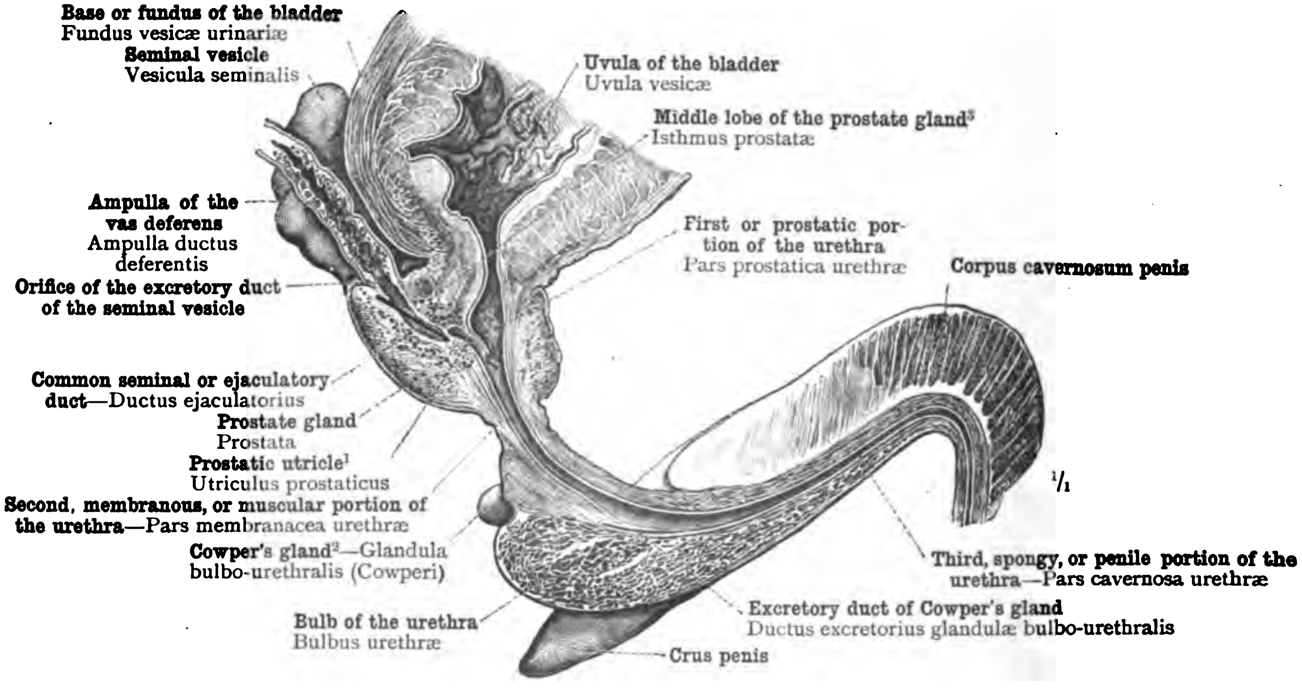

Vas deferens
Ductus deferens
Body of the seminal vesicle
Corpus vesiculæ seminalis
Ampulla of the vas deferens
Ampulla ductus deferentis
Excretory duct of the seminal vesicle
Ductus excretorius vesiculæ seminalis
Common seminal or ejaculatory duct
Ductus ejaculatorius
1/1

FIG. 857.—LONGITUDINAL SECTION THROUGH THE RIGHT SEMINAL VESICLE, THE AMPULLA OF THE VAS DEFERENS, AND THE COMMON SEMINAL OR EJACULATORY DUCT.


Base or fundus of the bladder
Fundus vesicæ urinariæ
Seminal vesicle
Vesicula seminalis
Uvula of the bladder
Uvula vesicæ
Middle lobe of the prostate gland[3]
Isthmus prostatæ
Ampulla of the vas deferens
Ampulla ductus deferentis
First or prostatic portion of the urethra
Pars prostatica urethræ
Corpus cavernosum penis
Orifice of the excretory duct of the seminal vesicle
Common seminal or ejaculatory duct—Ductus ejaculatorius
Prostate gland
Prostata
Prostatic utricle[1]
Utriculus prostaticus
Second, membranous, or muscular portion of the urethra—Pars membranacea urethræ
1/1
Cowper's gland[2]—Glandula bulbo-urethralis (Cowperi)
Third, spongy, or penile portion of the urethra—Pars cavernosa urethræ
Excretory duct of Cowper's gland
Ductus excretorius glandulæ bulbo-urethralis
Bulb of the urethra
Bulbus urethræ
Crus penis

[1] Known also as the *prostatic sinus*, *prostatic vesicle*, *sinus pocularis*, and *uterus masculinus*.

[2] Known also as the *suburethral gland*.

[3] See Appendix, note 73.

FIG. 858.—SAGITTAL SECTION THROUGH THE MALE URETHRA. LEFT HALF. URETHRAL ORIFICES OF THE COMMON SEMINAL OR EJACULATORY DUCT AND THE EXCRETORY DUCT OF COWPER'S GLAND (*see note* [2] *above*). THE PROSTATIC UTRICLE (*see note* [1] *above*).

Vesicula seminalis—The seminal vesicle.—Ductus deferens—The vas deferens.— Ductus ejaculatorius—The common seminal or ejaculatory duct.

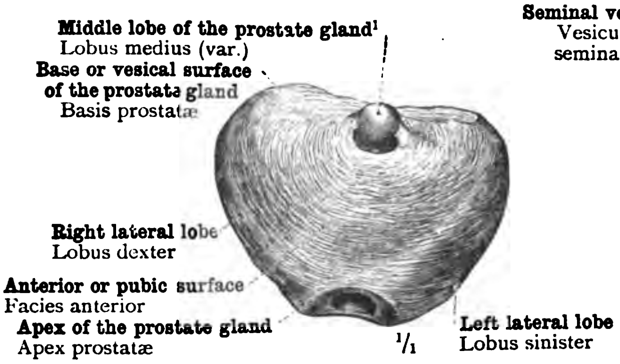

Middle lobe of the prostate gland[1]
Lobus medius (var.)
Base or vesical surface of the prostate gland
Basis prostatæ
Right lateral lobe
Lobus dexter
Anterior or pubic surface
Facies anterior
Apex of the prostate gland
Apex prostatæ
1/1
Left lateral lobe
Lobus sinister

FIG. 859.—THE PROSTATE GLAND, ISOLATED AND SEEN FROM BEFORE.

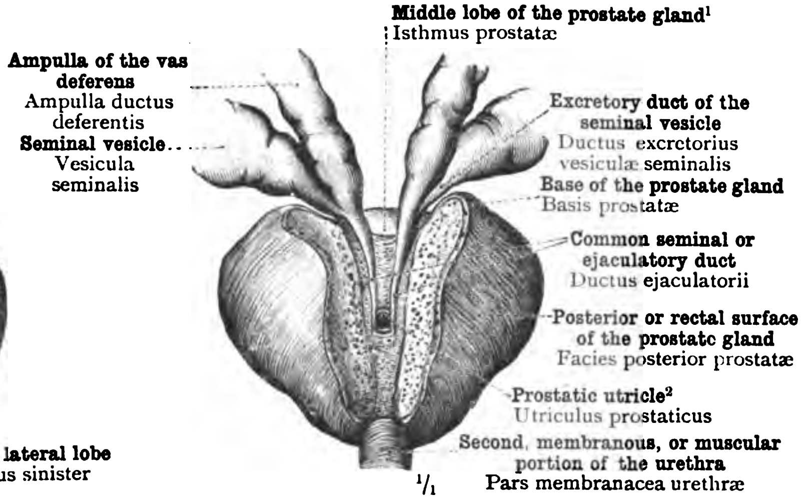

Middle lobe of the prostate gland[1]
Isthmus prostatæ
Ampulla of the vas deferens
Ampulla ductus deferentis
Seminal vesicle
Vesicula seminalis
Excretory duct of the seminal vesicle
Ductus excretorius vesiculæ seminalis
Base of the prostate gland
Basis prostatæ
Common seminal or ejaculatory duct
Ductus ejaculatorii
Posterior or rectal surface of the prostate gland
Facies posterior prostatæ
Prostatic utricle[2]
Utriculus prostaticus
Second, membranous, or muscular portion of the urethra
Pars membranacea urethræ
1/1

FIG. 860.—THE COMMON SEMINAL OR EJACULATORY DUCTS AND THE BLIND EXTREMITY OF THE PROSTATIC UTRICLE, LAID BARE FROM BEHIND BY THE REMOVAL OF A PORTION OF THE PROSTATE GLAND.

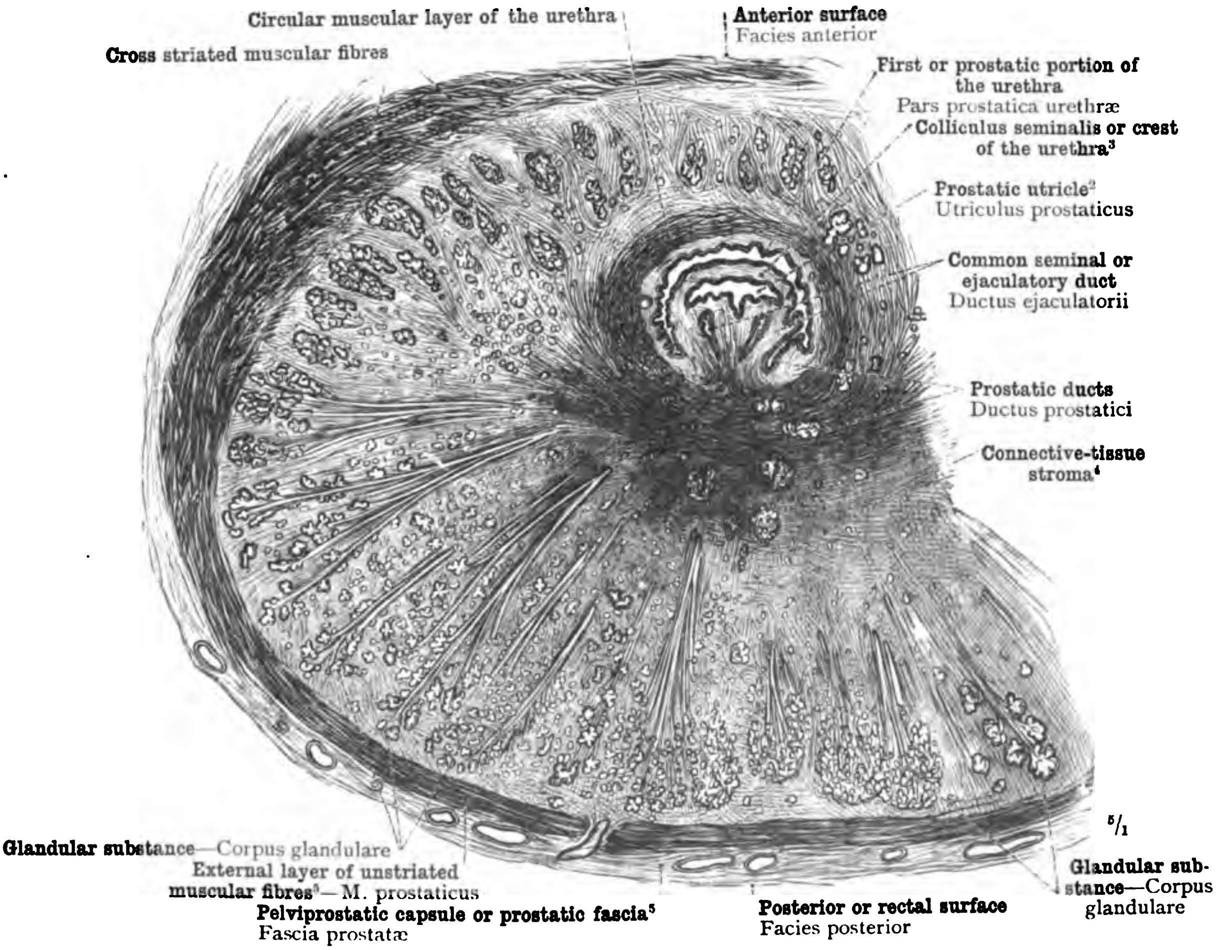

Circular muscular layer of the urethra
Anterior surface
Facies anterior
Cross striated muscular fibres
First or prostatic portion of the urethra
Pars prostatica urethræ
Colliculus seminalis or crest of the urethra[3]
Prostatic utricle[2]
Utriculus prostaticus
Common seminal or ejaculatory duct
Ductus ejaculatorii
Prostatic ducts
Ductus prostatici
Connective-tissue stroma[4]
5/1
Glandular substance—Corpus glandulare
External layer of unstriated muscular fibres[5]—M. prostaticus
Pelviprostatic capsule or prostatic fascia[5]
Fascia prostatæ
Posterior or rectal surface
Facies posterior
Glandular substance—Corpus glandulare

FIG. 861.—HORIZONTAL SECTION THROUGH THE MIDDLE OF THE PROSTATE GLAND OF A MUSCULAR MAN TWENTY-FOUR YEARS OF AGE TRANSVERSE SECTION OF THE COLLICULUS SEMINALIS OR CREST OF THE URETHRA.[3]

---

[1] See Appendix, note 73.

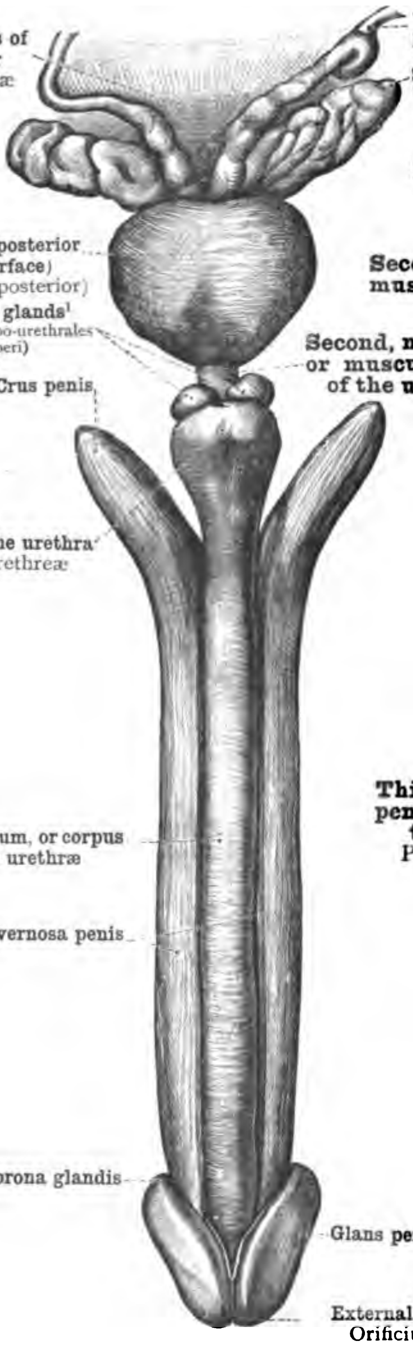
[2] Known also as the *prostatic sinus*, *prostatic vesicle*, *sinus pocularis*, and *uterus masculinus.*

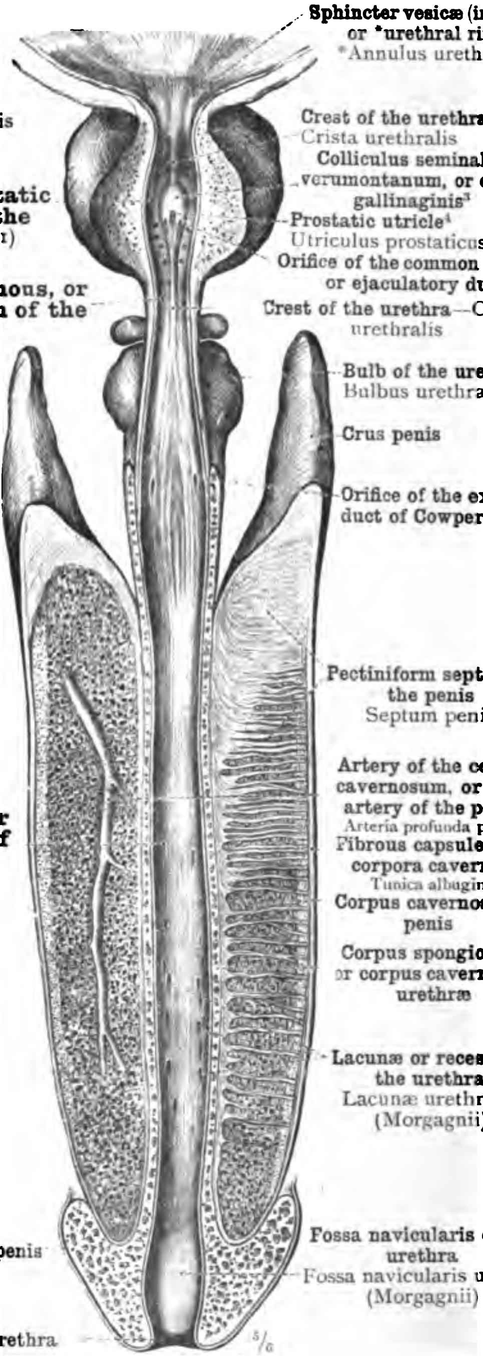
[3] Known also as the *verumontanum* or *caput gallinaginis.* See Appendix, note [illegible].

[4] This so-called connective-tissue stroma (*Bindgewebsstroma*, Toldt) of the prostate gland consists chiefly of unstriated muscular fibres.—TR.

[5] See Appendix, note 74.

Prostata—The prostate gland.—Ductus ejaculatorii—The common seminal or ejaculatory ducts.


Base or fundus of the bladder
Fundus vesicæ
Vas deferens
Ductus deferens
Seminal vesicle
Vesicula seminalis
Prostate gland (posterior or rectal surface)
Prostata (facies posterior)
Cowper's glands[1]
Glandulæ bulbo-urethrales (Cowperi)
Second, **membranous**, or muscular **portion** of the **urethra** (3)
Crus penis
Bulb of the urethra
Bulbus urethreæ
Corpus spongiosum, or corpus cavernosum urethræ
Corpora cavernosa penis
Corona glandis
Glans **penis**
External **orifice of the** urethra
Orificium urethræ externum


Sphincter vesicæ (internus) or *urethral ring[2]
*Annulus urethralis
First or prostatic portion of the urethra (1)
Crest of the urethra[3]
Crista urethralis
Colliculus seminalis, verumontanum, or caput gallinaginis[3]
Prostatic utricle[4]
Utriculus prostaticus
Orifice of the common seminal or ejaculatory duct
Second, membranous, or **muscular portion** of the **urethra** (2)
Crest of the urethra—Crista urethralis
Bulb of the urethra
Bulbus urethræ
Crus penis
Orifice of the excretory duct of Cowper's gland
Pectiniform septum of the penis
Septum penis
Third, spongy, or penile portion of the urethra
Pars cavernosa urethræ
Artery of the corpus cavernosum, or deep artery of the penis
Arteria profunda penis
Fibrous capsule of the corpora cavernosa
Tunica albuginea
Corpus cavernosum penis
Corpus spongiosum, or corpus cavernosum urethræ
Lacunæ or recesses of the urethra
Lacunæ urethrales (Morgagnii)
Glans penis
Fossa navicularis of the urethra
Fossa navicularis urethræ (Morgagnii)
5/6

(1) Pars prostatica urethræ. (2) Pars membranacea urethræ (3) Pars membranacea urethræ

FIG. 862.—THE PENIS, WITH THE URETHRA, COWPER'S GLANDS,[1] THE PROSTATE GLAND, AND THE SEMINAL VESICLES, SEEN FROM BELOW AND BEHIND.

FIG. 863.—THE MALE URETHRA, OPENED FROM ABOVE AND BEFORE BY A SAGITTAL SECTION CLOSE TO THE PECTINIFORM SEPTUM OF THE PENIS.

---

[1] Known also as the *suburethral glands*. [2] See Appendix, note 62. [3] See Appendix, note 63.
[4] Known also as the *prostatic sinus, prostatic vesicle, sinus pocularis*, and *uterus masculinus*.

Penis—The penis.—Urethra virilis—The male urethra.

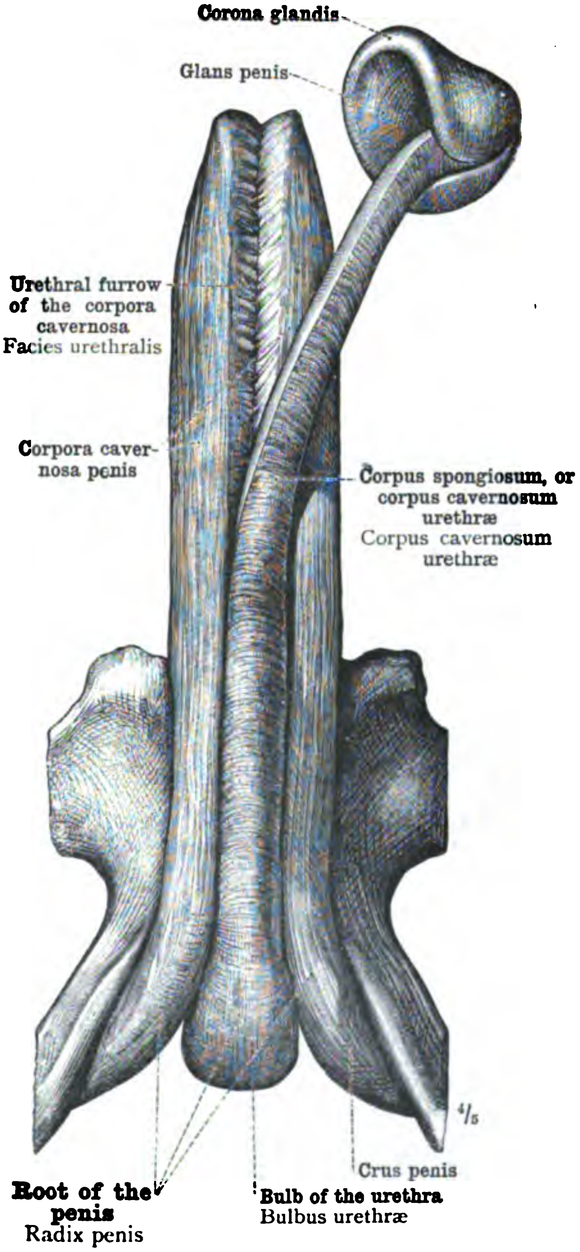


FIG. 864.—THE PENIS, WITH THE PUBIC BONES. SEEN FROM BEFORE AND BELOW.

The corpus spongiosum, or corpus cavernosum urethræ, with the glans penis, has been separated from the corpora cavernosa penis for the anterior half of its extent, and turned to one side.

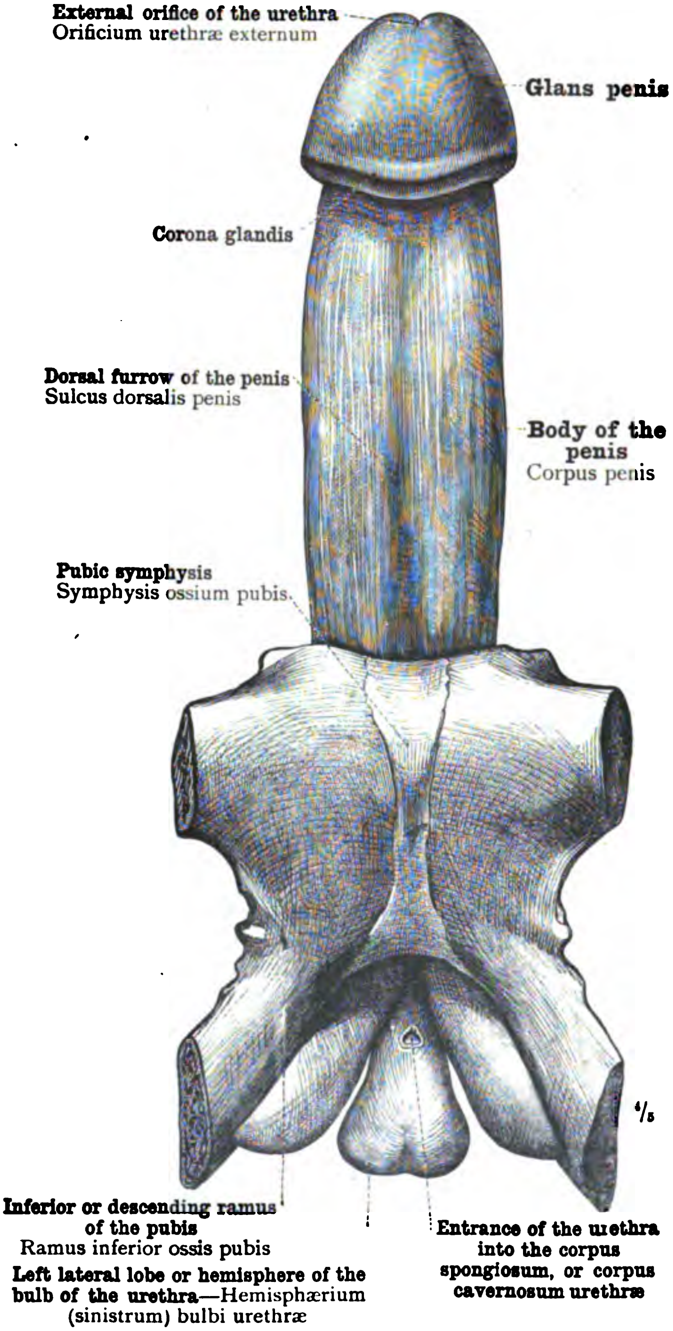

External orifice of the urethra
Orificium urethræ externum
Glans penis
Corona glandis
Dorsal furrow of the penis
Sulcus dorsalis penis
Body of the penis
Corpus penis
Pubic symphysis
Symphysis ossium pubis
4/5
Inferior or descending ramus of the pubis
Ramus inferior ossis pubis
Left lateral lobe or hemisphere of the bulb of the urethra—Hemisphærium (sinistrum) bulbi urethræ
Entrance of the urethra into the corpus spongiosum, or corpus cavernosum urethræ

FIG. 865.—THE PENIS, WITH THE PUBIC BONES. SEEN FROM ABOVE AND BEHIND.

The urethra has been cut away at its entrance into the corpus spongiosum, or corpus cavernosum urethræ.

The Penis.

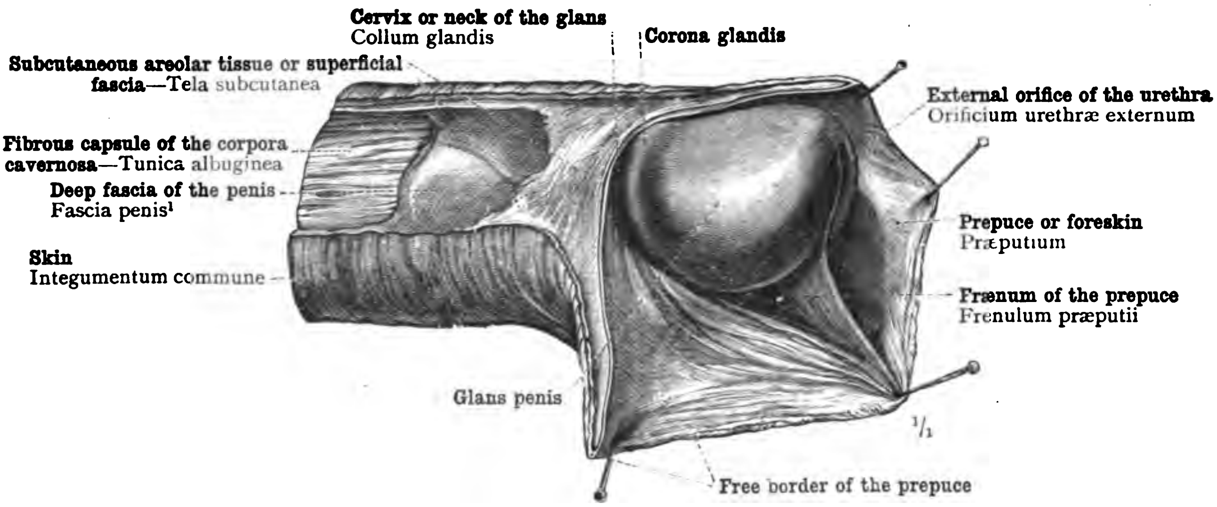

Cervix or neck of the glans
Collum glandis
Corona glandis
Subcutaneous areolar tissue or superficial fascia—Tela subcutanea
External orifice of the urethra
Orificium urethræ externum
Fibrous capsule of the corpora cavernosa—Tunica albuginea
Deep fascia of the penis
Fascia penis[1]
Prepuce or foreskin
Præputium
Skin
Integumentum commune
Frænum of the prepuce
Frenulum præputii
Glans penis
1/1
Free border of the prepuce

FIG. 866.—FREE PORTION, OR BODY, OF THE PENIS SEEN FROM THE RIGHT SIDE.

The skin has been divided along the dorsum of the penis, and the right half of the prepuce or foreskin has been turned downwards. The subcutaneous areolar tissue or superficial fascia and the deep fascia have been partially removed.

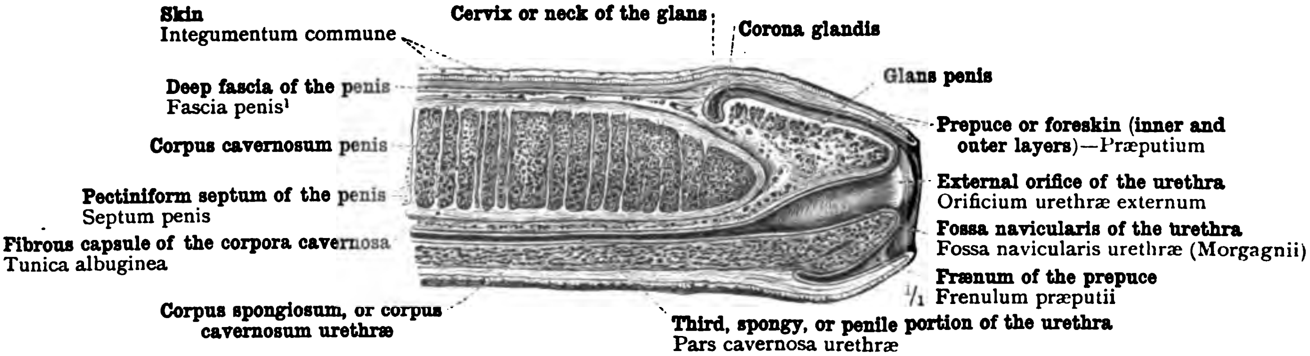
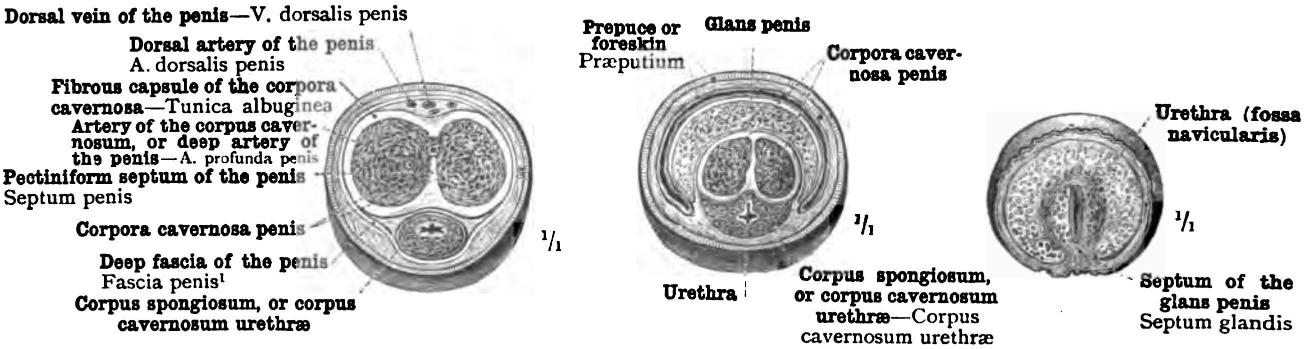

Skin
Integumentum commune
Cervix or neck of the glans
Corona glandis
Glans penis
Deep fascia of the penis
Fascia penis[1]
Prepuce or foreskin (inner and outer layers)—Præputium
Corpus cavernosum penis
External orifice of the urethra
Orificium urethræ externum
Pectiniform septum of the penis
Septum penis
Fossa navicularis of the urethra
Fossa navicularis urethræ (Morgagnii)
Fibrous capsule of the corpora cavernosa
Tunica albuginea
Frænum of the prepuce
Frenulum præputii
1/1
Corpus spongiosum, or corpus cavernosum urethræ
Third, spongy, or penile portion of the urethra
Pars cavernosa urethræ

FIG. 867.—MEDIAN SAGITTAL SECTION THROUGH THE FREE PORTION, OR BODY, OF THE PENIS.


Dorsal vein of the penis—V. dorsalis penis
Dorsal artery of the penis
A. dorsalis penis
Fibrous capsule of the corpora cavernosa—Tunica albuginea
Artery of the corpus cavernosum, or deep artery of the penis—A. profunda penis
Pectiniform septum of the penis
Septum penis
Corpora cavernosa penis
Deep fascia of the penis
Fascia penis[1]
Corpus spongiosum, or corpus cavernosum urethræ
1/1
Prepuce or foreskin
Præputium
Glans penis
Corpora cavernosa penis
1/1
Urethra
Corpus spongiosum, or corpus cavernosum urethræ—Corpus cavernosum urethræ
Urethra (fossa navicularis)
1/1
Septum of the glans penis
Septum glandis

MIDDLE OF THE PENIS. ANTERIOR PORTION OF THE GLANS PENIS. POSTERIOR PORTION OF THE GLANS PENIS.

FIG. 868.—TRANSVERSE SECTIONS THROUGH THE PENIS.

---

[1] *Fascia Penis.*—This term, as used by the author, denotes not only the *deep fascia of the penis* of English anatomists, which forms a sheath for the free portion or *body* of the penis, but also the fascial layer (structurally continuous with the deep fascia of the penis) which covers the root of the organ, and belongs to the perineum. This latter is usually known in England by the name of *Colles's fascia.* See Fig. 914, p. 526, and note [2] on that page.—TR.

The Penis.

ORGANA GENITALIA MULIEBRIA

FEMALE REPRODUCTIVE ORGANS

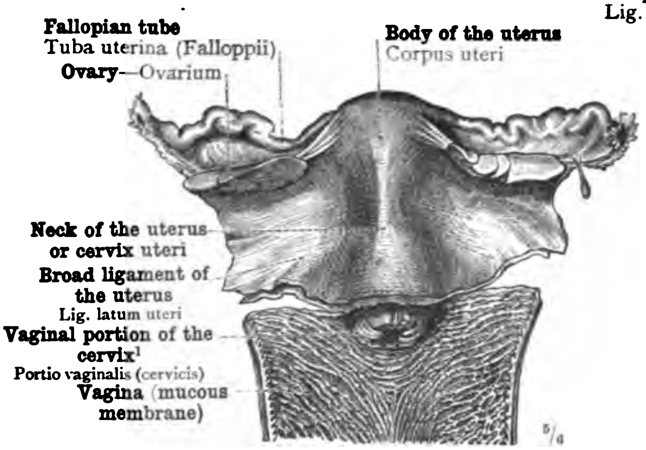


FIG. 869.—INTERNAL GENITAL ORGANS OF A NEW-BORN, POWERFULLY-DEVELOPED FEMALE INFANT. SEEN FROM BEHIND.

The posterior wall of the vagina has been divided by a median longitudinal incision and the segments turned to the right and the left.

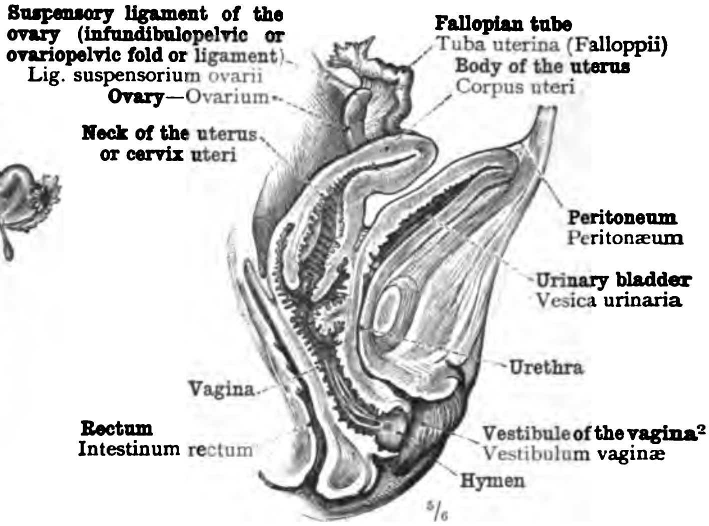
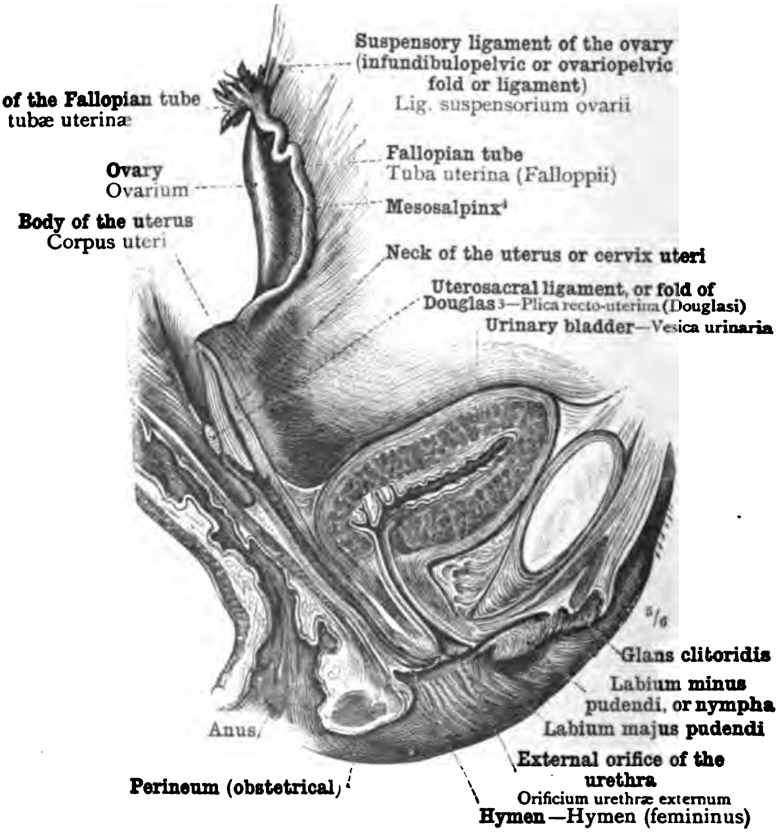


FIG. 870.—REPRODUCTIVE ORGANS OF A NEW-BORN, POWERFULLY-DEVELOPED FEMALE INFANT IN MEDIAN SAGITTAL SECTION. LEFT HALF.


Infundibulum of the Fallopian tube
Infundibulum tubæ uterinæ
Suspensory ligament of the ovary (infundibulopelvic or ovariopelvic fold or ligament)
Lig. suspensorium ovarii
Fallopian tube
Tuba uterina (Falloppii)
Ovary
Ovarium
Mesosalpinx[4]
Body of the uterus
Corpus uteri
Neck of the uterus or cervix uteri
Uterosacral ligament, or fold of Douglas[3]—Plica recto-uterina (Douglasi)
Urinary bladder—Vesica urinaria
5/6
Glans clitoridis
Labium minus pudendi, or nympha
Labium majus pudendi
Anus
External orifice of the urethra
Orificium urethræ externum
Perineum (obstetrical)
Hymen—Hymen (femininus)

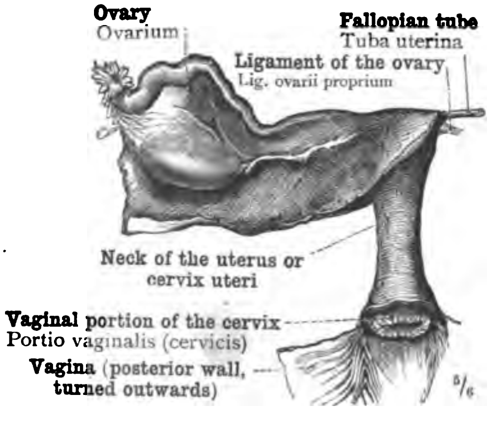

Ovary
Ovarium
Fallopian tube
Tuba uterina
Ligament of the ovary
Lig. ovarii proprium
Neck of the uterus or cervix uteri
Vaginal portion of the cervix
Portio vaginalis (cervicis)
Vagina (posterior wall, turned outwards)
5/6

FIG. 871.—INTERNAL GENITAL ORGANS OF A GIRL AGED EIGHT YEARS. SEEN FROM BEHIND.

FIG. 872.—REPRODUCTIVE ORGANS OF A GIRL AGED TEN YEARS IN MEDIAN SAGITTAL SECTION. LEFT HALF.

---

[1] See Appendix, note 75.

[2] See Appendix, note 90.

[3] Known also as the *recto-uterine fold* or *ligament*. It forms the lateral boundary of the *pouch of Douglas*, and must be distinguished from the *rectovaginal ligament*, which forms the floor of that pouch.—TR.

[4] See Appendix, note 82.

Female Reproductive Organs in Infancy and Childhood.

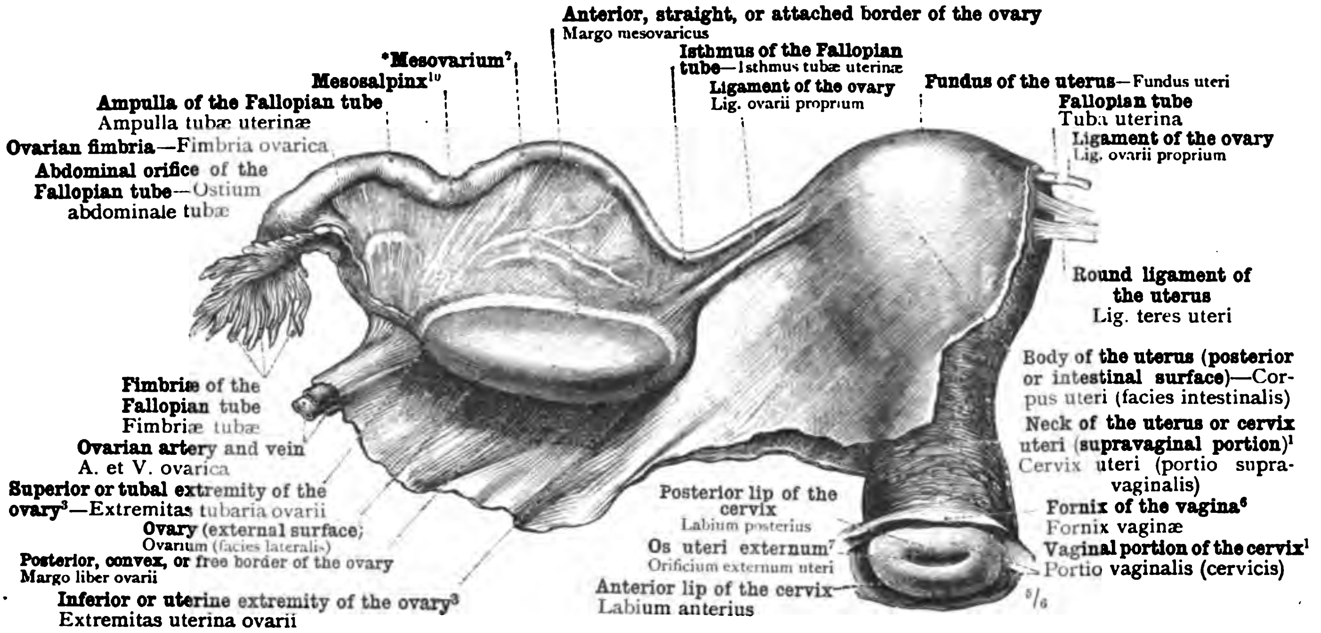

Anterior, straight, or attached border of the ovary
Margo mesovaricus
*Mesovarium[2]
Mesosalpinx[10]
Isthmus of the Fallopian tube—Isthmus tubæ uterinæ
Ligament of the ovary
Lig. ovarii proprium
Fundus of the uterus—Fundus uteri
Fallopian tube
Tuba uterina
Ligament of the ovary
Lig. ovarii proprium
Ampulla of the Fallopian tube
Ampulla tubæ uterinæ
Ovarian fimbria—Fimbria ovarica
Abdominal orifice of the Fallopian tube—Ostium abdominale tubæ
Round ligament of the uterus
Lig. teres uteri
Body of the uterus (posterior or intestinal surface)—Corpus uteri (facies intestinalis)
Neck of the uterus or cervix uteri (supravaginal portion)[1]
Cervix uteri (portio supravaginalis)
Fimbriæ of the Fallopian tube
Fimbriæ tubæ
Ovarian artery and vein
A. et V. ovarica
Superior or tubal extremity of the ovary[3]—Extremitas tubaria ovarii
Ovary (external surface)
Ovarium (facies lateralis)
Posterior, convex, or free border of the ovary
Margo liber ovarii
Inferior or uterine extremity of the ovary[3]
Extremitas uterina ovarii
Posterior lip of the cervix
Labium posterius
Os uteri externum[7]
Orificium externum uteri
Anterior lip of the cervix
Labium anterius
Fornix of the vagina[6]
Fornix vaginæ
Vaginal portion of the cervix[1]
Portio vaginalis (cervicis)
5/6

FIG. 873.—THE UTERUS, THE LEFT FALLOPIAN TUBE, AND THE LEFT OVARY, IN THEIR CONNEXION WITH THE BROAD LIGAMENT OF THE UTERUS, WHICH HAS BEEN FULLY UNFOLDED.[3] SEEN FROM BEHIND. FROM A VIRGIN, AGED NINETEEN YEARS.

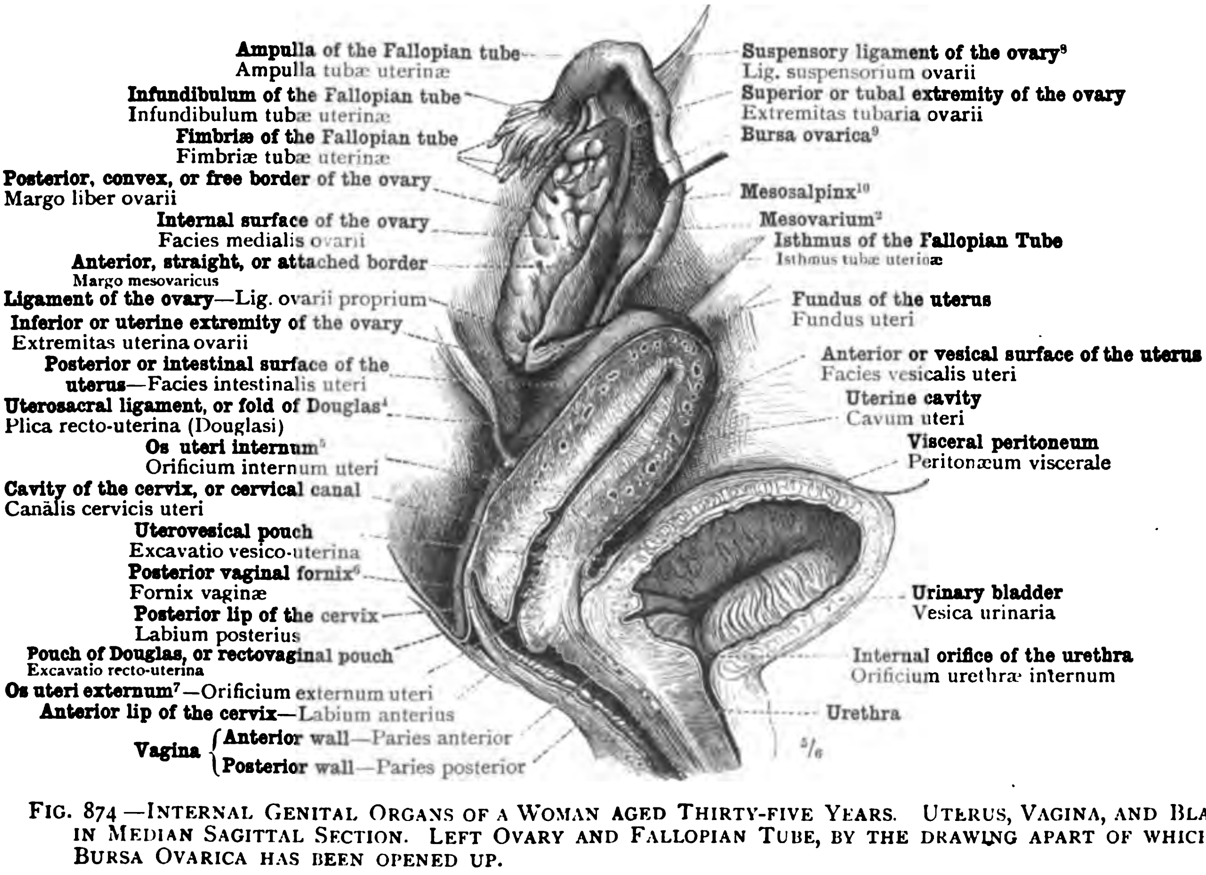
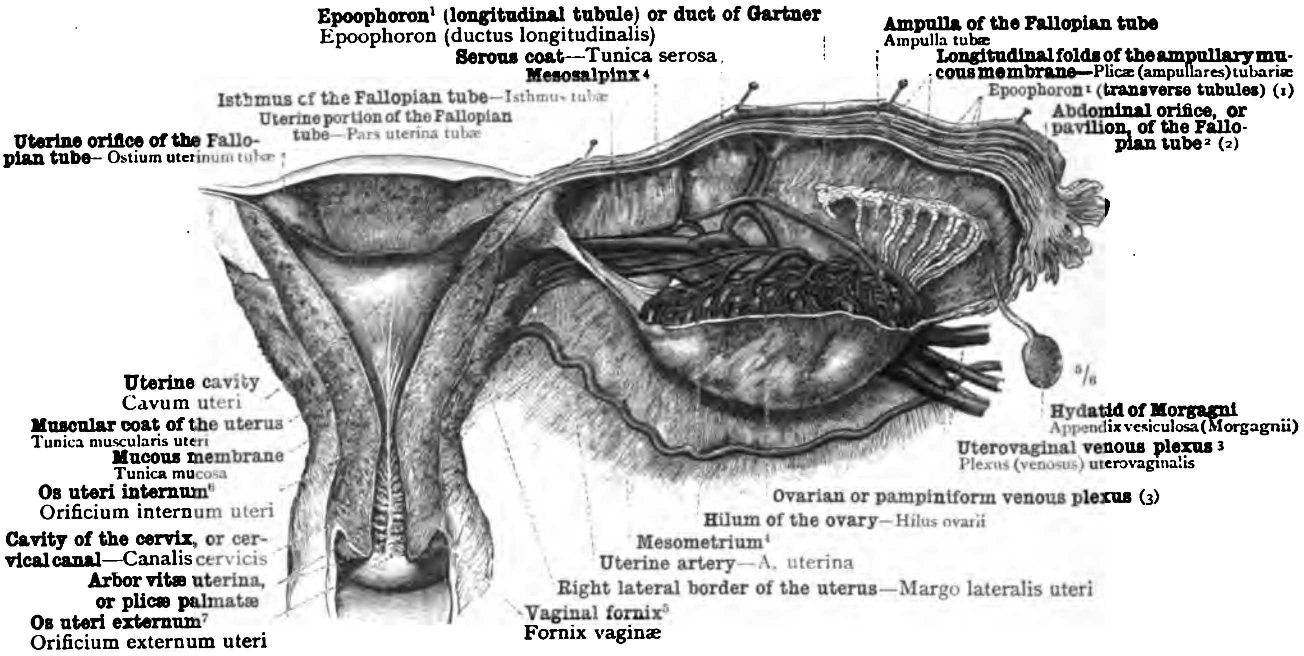

Ampulla of the Fallopian tube
Ampulla tubæ uterinæ
Infundibulum of the Fallopian tube
Infundibulum tubæ uterinæ
Fimbriæ of the Fallopian tube
Fimbriæ tubæ uterinæ
Posterior, convex, or free border of the ovary
Margo liber ovarii
Internal surface of the ovary
Facies medialis ovarii
Anterior, straight, or attached border
Margo mesovaricus
Ligament of the ovary—Lig. ovarii proprium
Inferior or uterine extremity of the ovary
Extremitas uterina ovarii
Posterior or intestinal surface of the uterus—Facies intestinalis uteri
Uterosacral ligament, or fold of Douglas[4]
Plica recto-uterina (Douglasi)
Os uteri internum[5]
Orificium internum uteri
Cavity of the cervix, or cervical canal
Canālis cervicis uteri
Uterovesical pouch
Excavatio vesico-uterina
Posterior vaginal fornix[6]
Fornix vaginæ
Posterior lip of the cervix
Labium posterius
Pouch of Douglas, or rectovaginal pouch
Excavatio recto-uterina
Os uteri externum[7]—Orificium externum uteri
Anterior lip of the cervix—Labium anterius
Vagina
Anterior wall—Paries anterior
Posterior wall—Paries posterior
Suspensory ligament of the ovary[8]
Lig. suspensorium ovarii
Superior or tubal extremity of the ovary
Extremitas tubaria ovarii
Bursa ovarica[9]
Mesosalpinx[10]
Mesovarium[2]
Isthmus of the Fallopian Tube
Isthmus tubæ uterinæ
Fundus of the uterus
Fundus uteri
Anterior or vesical surface of the uterus
Facies vesicalis uteri
Uterine cavity
Cavum uteri
Visceral peritoneum
Peritonæum viscerale
Urinary bladder
Vesica urinaria
Internal orifice of the urethra
Orificium urethræ internum
Urethra
5/6

FIG. 874.—INTERNAL GENITAL ORGANS OF A WOMAN AGED THIRTY-FIVE YEARS. UTERUS, VAGINA, AND BLADDER IN MEDIAN SAGITTAL SECTION. LEFT OVARY AND FALLOPIAN TUBE, BY THE DRAWING APART OF WHICH THE BURSA OVARICA HAS BEEN OPENED UP.

---

[1] See Appendix, note 75.
[2] See Appendix, note 76.
[3] See Appendix, note 77.
[4] See note 3 to p. 510.
[5] Known also as the *isthmus uteri*, or *isthmus of the uterine cavity*, and sometimes as *ostium uteri*.
[6] See Appendix, note 78.
[7] See Appendix, note 67.
[8] Known also as the *infundibulopelvic* or *ovariopelvic fold or ligament*.
[9] See Appendix, note 79.
[10] See Appendix, note 82.

Female Internal Genital Organs in the Fully Developed State.


Epoophoron[1] **(longitudinal tubule) or duct of Gartner**
Epoophoron (ductus longitudinalis)
Serous coat—Tunica serosa
Mesosalpinx[4]
Isthmus of the Fallopian tube—Isthmus tubæ
Uterine portion of the Fallopian tube—Pars uterina tubæ
Uterine orifice of the Fallopian tube— Ostium uterinum tubæ
Ampulla of the Fallopian tube
Ampulla tubæ
Longitudinal folds of the ampullary mucous membrane—Plicæ (ampullares) tubariæ
Epoophoron[1] **(transverse tubules)** (1)
Abdominal orifice, or pavilion, of the Fallopian tube[2] (2)
Uterine cavity
Cavum uteri
Muscular coat of the uterus
Tunica muscularis uteri
Mucous membrane
Tunica mucosa
Os uteri internum[6]
Orificium internum uteri
Cavity of the cervix, or cervical canal—Canalis cervicis
Arbor vitæ uterina, or plicæ palmatæ
Os uteri externum[7]
Orificium externum uteri
5/6
Hydatid of Morgagni
Appendix vesiculosa (Morgagnii)
Uterovaginal venous plexus[3]
Plexus (venosus) uterovaginalis
Ovarian or pampiniform venous plexus (3)
Hilum of the ovary—Hilus ovarii
Mesometrium[4]
Uterine artery—A. uterina
Right lateral border of the uterus—Margo lateralis uteri
Vaginal fornix[5]
Fornix vaginæ

(1) Epoophoron (ductuli transversi) (2) Ostium abdominale tubæ (3) Plexus (venosus) ovaricus

FIG. 875.—THE UTERUS AND THE RIGHT FALLOPIAN TUBE, OPENED FROM BEHIND. EPOOPHORON, PAROVARIUM, OR ORGAN OF ROSENMÜLLER.

The posterior layer of the broad ligament of the uterus has been removed.

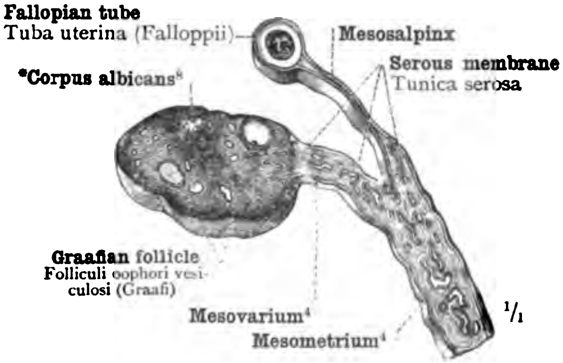


FIG. 876.—LIGAMENTUM LATUM UTERI, THE BROAD LIGAMENT OF THE UTERUS, WITH THE MESOVARIUM THE MESOSALPINX, THE OVARY, AND THE FALLOPIAN TUBE, IN TRANSVERSE SECTION.

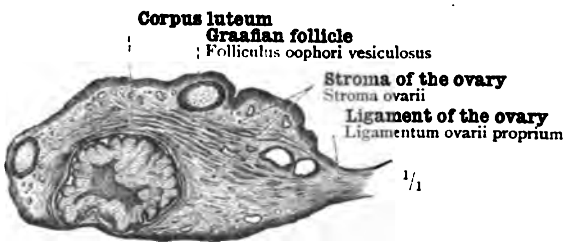

Corpus luteum
Graafian follicle
Folliculus oophori vesiculosus
Stroma of the ovary
Stroma ovarii
Ligament of the ovary
Ligamentum ovarii proprium
1/1

FIG. 877.—LONGITUDINAL SECTION THROUGH THE OVARY.

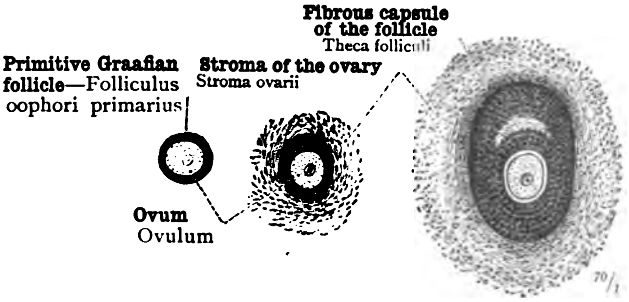

Fibrous capsule of the follicle
Theca folliculi
Primitive Graafian follicle—Folliculus oophori primarius
Stroma of the ovary
Stroma ovarii
Ovum
Ovulum
70/1

FIG. 878.—STAGES IN THE DEVELOPMENT OF THE PRIMITIVE GRAAFIAN FOLLICLES.

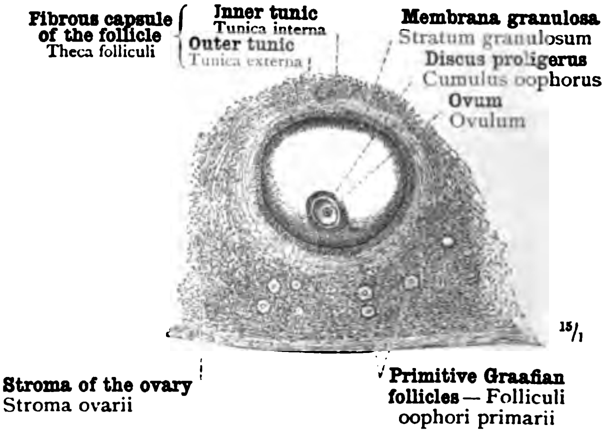


FIG. 879.—GRAAFIAN FOLLICLE, FOLLICULUS OOPHORUS VESICULOSUS, IN SECTION.

---

[1] The *epoophoron* is also known as the *parovarium*, or *organ of Rosenmüller*.
[2] See Appendix, note 80.
[3] See Appendix, note 81.
[4] See Appendix, note 82.
[5] See Appendix, note 78.
[6] See note 5 to p. 511.
[7] See Appendix, note 67.
[8] See Appendix, note 83.

Uterus—The uterus. --Tuba uterina—The Fallopian tube.—Ovarium—The ovary.

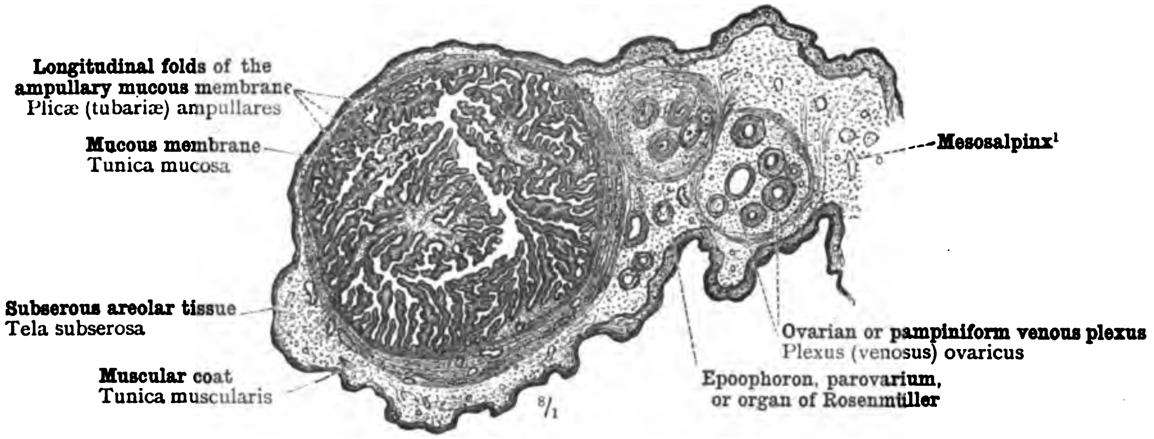

Longitudinal folds of the **ampullary mucous** membrane
Plicæ (tubariæ) ampullares
Mucous membrane
Tunica mucosa
Subserous areolar tissue
Tela subserosa
Muscular coat
Tunica muscularis
8/1
Mesosalpinx[1]
Ovarian or **pampiniform venous plexus**
Plexus (venosus) ovaricus
Epoophoron, parovarium,
or organ of Rosenmüller

FIG. 880.—AMPULLA TUBÆ UTERINÆ, THE AMPULLA OF THE FALLOPIAN TUBE, WITH THE ADJOINING PORTION OF THE MESOSALPINX, AND THE EPOOPHORON, PAROVARIUM, OR ORGAN OF ROSENMÜLLER, IN TRANSVERSE SECTION.

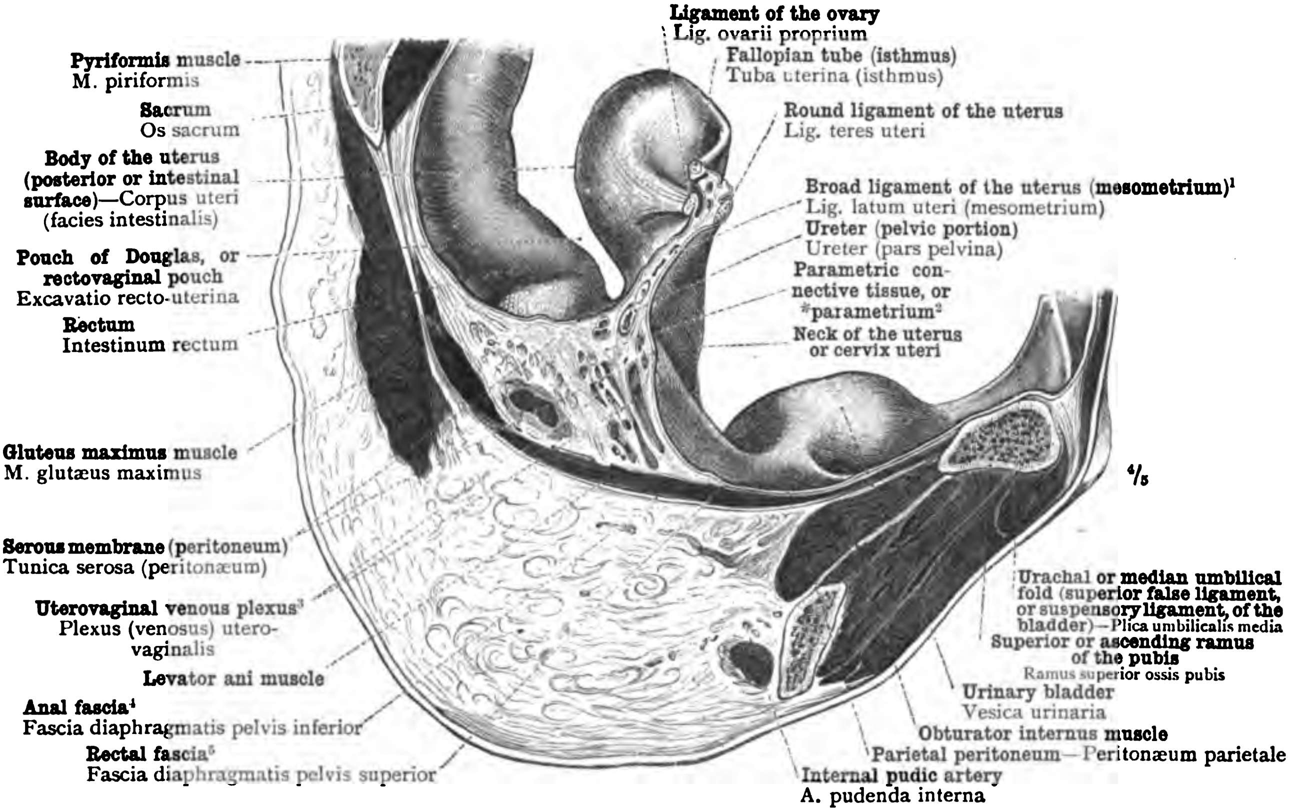

Ligament of the ovary
Lig. ovarii proprium
Fallopian tube (isthmus)
Tuba uterina (isthmus)
Round ligament of the uterus
Lig. teres uteri
Broad ligament of the uterus (mesometrium)[1]
Lig. latum uteri (mesometrium)
Ureter (pelvic portion)
Ureter (pars pelvina)
Parametric connective tissue, or *parametrium[2]
Neck of the uterus or cervix uteri
4/5
Pyriformis muscle
M. piriformis
Sacrum
Os sacrum
Body of the uterus (posterior or intestinal surface)—Corpus uteri (facies intestinalis)
Pouch of Douglas, or rectovaginal pouch
Excavatio recto-uterina
Rectum
Intestinum rectum
Gluteus maximus muscle
M. glutæus maximus
Serous membrane (peritoneum)
Tunica serosa (peritonæum)
Uterovaginal venous plexus[3]
Plexus (venosus) utero-vaginalis
Levator ani muscle
Anal fascia[4]
Fascia diaphragmatis pelvis inferior
Rectal fascia[5]
Fascia diaphragmatis pelvis superior
Urachal or **median umbilical fold** (superior **false ligament**, or suspensory **ligament, of the** bladder)—Plica umbilicalis media
Superior or **ascending ramus of the pubis**
Ramus superior ossis pubis
Urinary bladder
Vesica urinaria
Obturator internus muscle
Parietal peritoneum—Peritonæum parietale
Internal pudic artery
A. pudenda interna

FIG. 881.—SAGITTAL SECTION THROUGH THE FEMALE PELVIS, 4 CENTIMETRES (1·575 INCHES) TO THE RIGHT OF THE MEDIAN PLANE. THE SECTION PASSES THROUGH THE RIGHT BROAD LIGAMENT OF THE UTERUS, AND SHOWS THE CONTINUITY OF THE TWO LAYERS OF THIS LIGAMENT WITH THE PARIETAL PERITONEUM OF THE FLOOR OF THE PELVIS. *PARAMETRIUM, OR PARAMETRIC CONNECTIVE TISSUE (*see Appendix*, *note* 84). DIAPHRAGMA PELVIS, THE PELVIC DIAPHRAGM (*see Appendix*, *note* 87), WITH ITS SUPERIOR AND INFERIOR FASCIAL LAYERS, AND INFERIOR TO THE LATTER OF THESE THE FATTY TISSUE OF THE ISCHIORECTAL FOSSA. FROM A FROZEN PREPARATION.

The long axis of the uterus in this specimen is vertical, the organ being pathologically retroverted.

Tuba uterina—The Fallopian tube.—Ligamentum latum uteri—The broad ligament of the uterus.—*Parametrium—The parametric connective tissue.

---

[1] See Appendix, note 82.
[2] See Appendix, note 84.
[3] See Appendix, note 81.
[4] See Appendix, note 85.
[5] See Appendix, note 86.
[6] See Appendix, note 87.

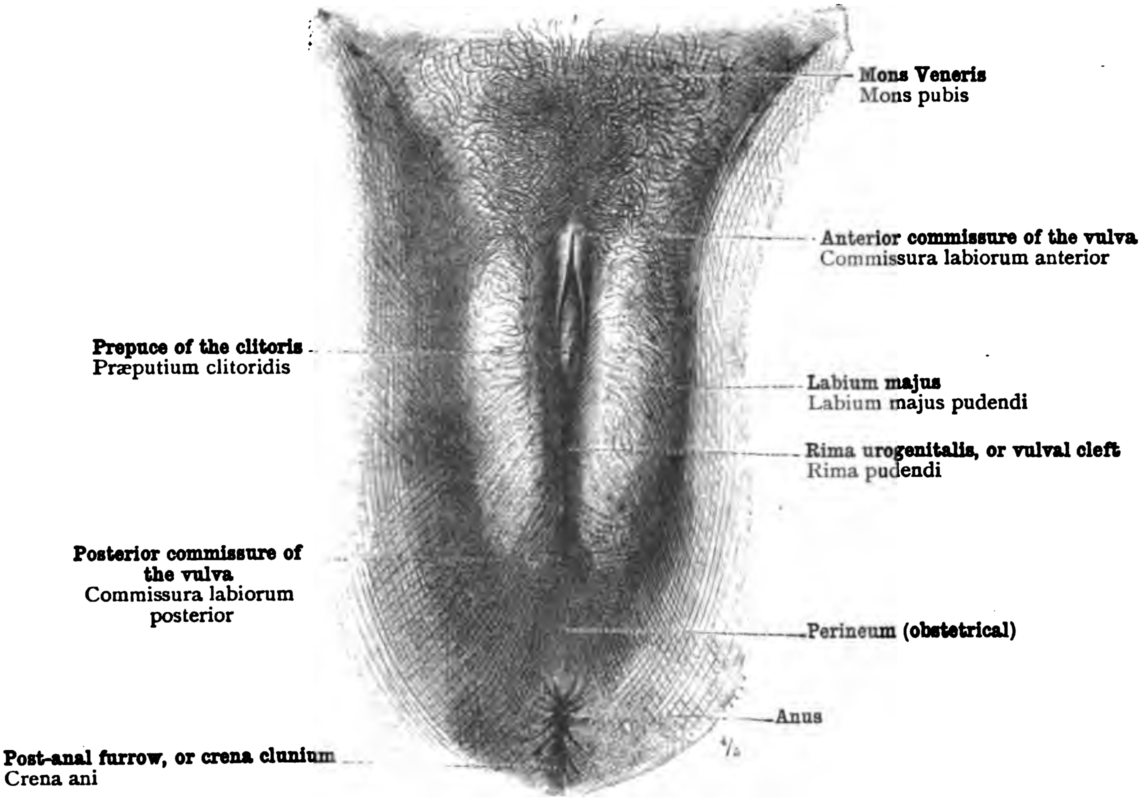
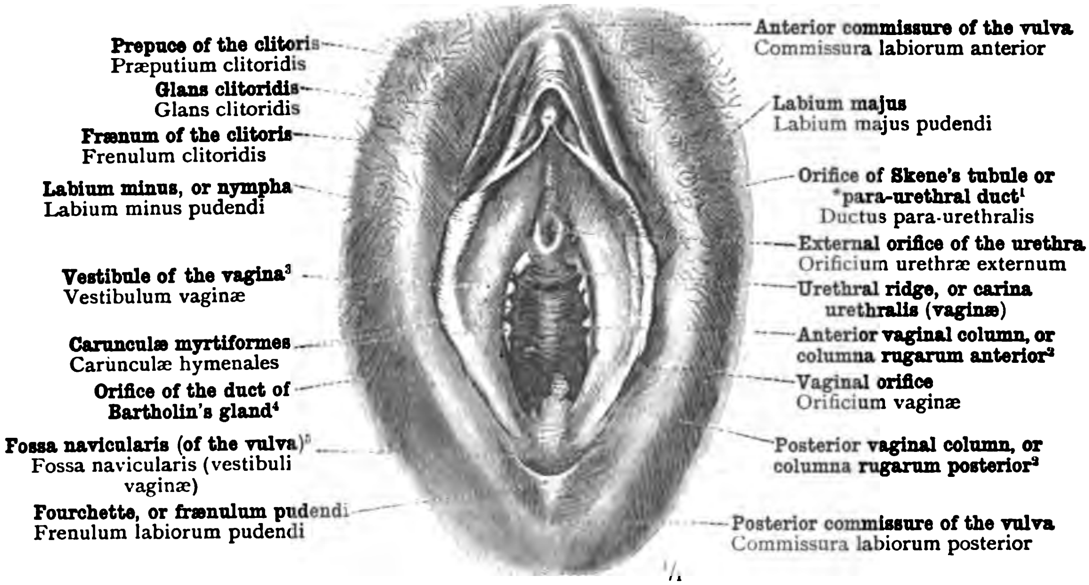

Mons Veneris
Mons pubis
Anterior commissure of the vulva
Commissura labiorum anterior
Prepuce of the clitoris
Præputium clitoridis
Labium majus
Labium majus pudendi
Rima urogenitalis, or vulval cleft
Rima pudendi
Posterior commissure of the vulva
Commissura labiorum posterior
Perineum (obstetrical)
Anus
Post-anal furrow, or crena clunium
Crena ani

FIG. 882.—PUDENDUM MULIEBRE, THE FEMALE PUDENDUM, OR VULVA, WITH THE LABIA MAJORA. RIMA UROGENITALIS, THE VULVAL CLEFT. FEMALE PERINEUM (OBSTETRICAL PERINEUM). MONS VENERIS, WITH THE PUBIC HAIR.


Prepuce of the clitoris
Præputium clitoridis
Glans clitoridis
Glans clitoridis
Frænum of the clitoris
Frenulum clitoridis
Labium minus, or nympha
Labium minus pudendi
Vestibule of the vagina[3]
Vestibulum vaginæ
Carunculæ myrtiformes
Carunculæ hymenales
Orifice of the duct of Bartholin's gland[4]
Fossa navicularis (of the vulva)[5]
Fossa navicularis (vestibuli vaginæ)
Fourchette, or frænulum pudendi
Frenulum labiorum pudendi
Anterior commissure of the vulva
Commissura labiorum anterior
Labium majus
Labium majus pudendi
Orifice of Skene's tubule or *para-urethral duct[1]
Ductus para-urethralis
External orifice of the urethra
Orificium urethræ externum
Urethral ridge, or carina urethralis (vaginæ)
Anterior vaginal column, or columna rugarum anterior[2]
Vaginal orifice
Orificium vaginæ
Posterior vaginal column, or columna rugarum posterior[2]
Posterior commissure of the vulva
Commissura labiorum posterior

[1] See Appendix, note 88.

[2] *Vaginal columns*, anterior and posterior. These may be either single or double.—TR.

[3] See Appendix, note 89.

[4] *Glandula vestibularis major*, known also as *Duverney's gland* and the *suburethral gland*. (See Appendix, note 66.)

[5] See Appendix, note 90.

FIG. 883.—VESTIBULE OF THE VAGINA (*see note* 3 *above*) WITH THE LABIA MINORA OR NYMPHÆ, THE VAGINAL AND URETHRAL ORIFICES, AND THE GLANS CLITORIDIS.

The labia majora have been drawn outwards, and the rima urogenitalis, or vulval cleft, has thus been widely opened.

Partes genitales externæ muliebres—The female external genital organs.

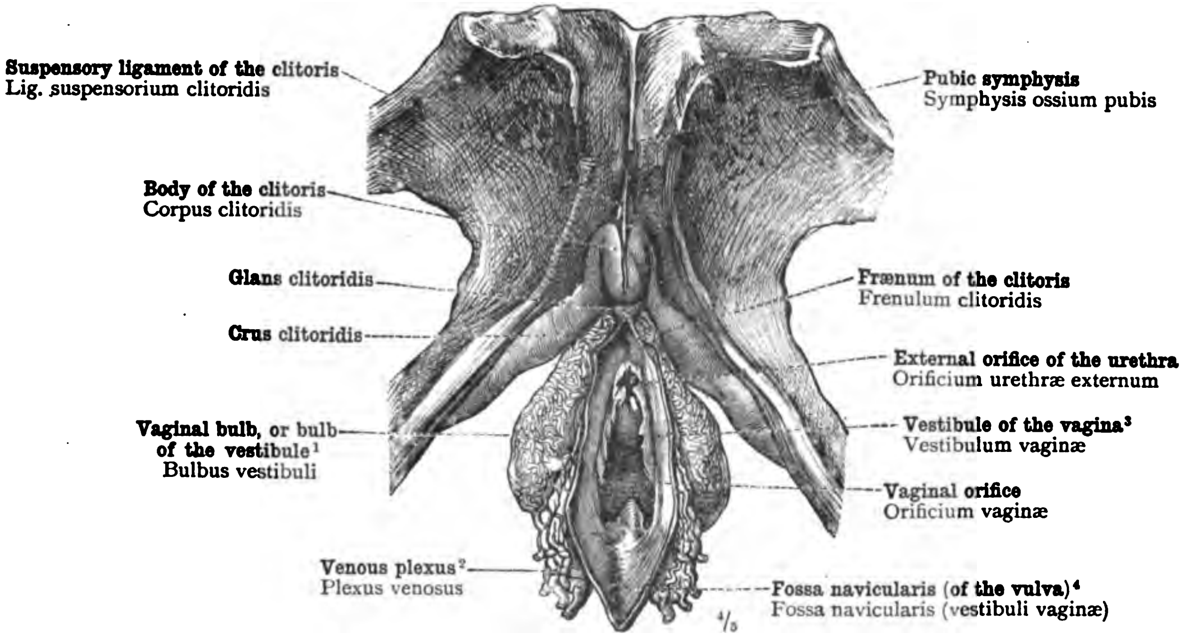

Suspensory ligament of the clitoris
Lig. suspensorium clitoridis
Body of the clitoris
Corpus clitoridis
Glans clitoridis
Crus clitoridis
Vaginal bulb, or bulb of the vestibule[1]
Bulbus vestibuli
Venous plexus[2]
Plexus venosus
Pubic symphysis
Symphysis ossium pubis
Frænum of the clitoris
Frenulum clitoridis
External orifice of the urethra
Orificium urethræ externum
Vestibule of the vagina[3]
Vestibulum vaginæ
Vaginal orifice
Orificium vaginæ
Fossa navicularis (of the vulva)[4]
Fossa navicularis (vestibuli vaginæ)
1/5

FIG. 884.—THE CLITORIS AND THE VAGINAL BULB OR BULB OF THE VESTIBULE,[1] INJECTED WITH RESIN THROUGH THE VEINS, AND FULLY EXPOSED BY REMOVAL OF THE LABIA MAJORA AND MINORA. SEEN FROM BEFORE AND BELOW.

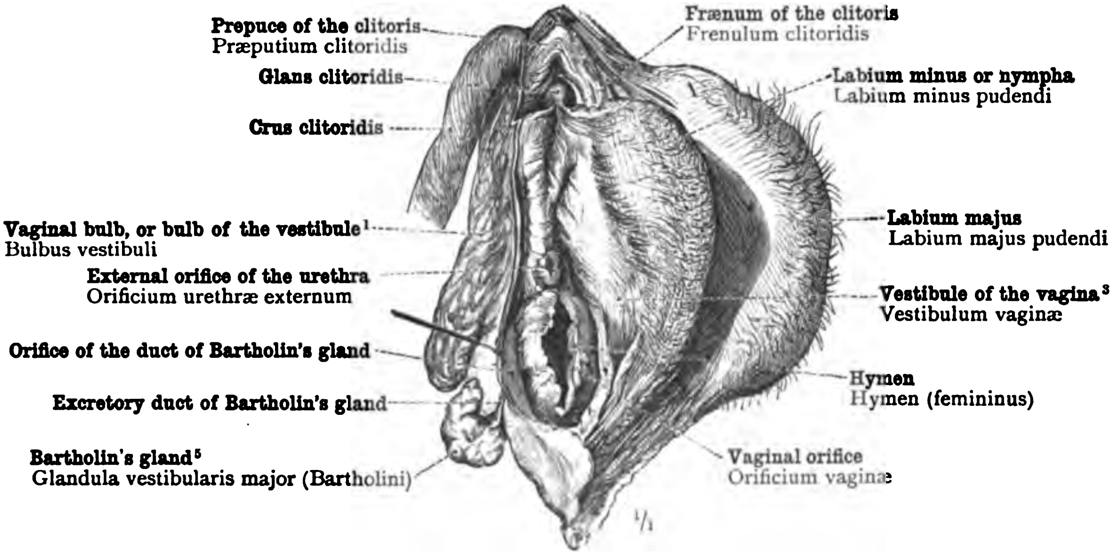

Prepuce of the clitoris
Præputium clitoridis
Glans clitoridis
Crus clitoridis
Vaginal bulb, or bulb of the vestibule[1]
Bulbus vestibuli
External orifice of the urethra
Orificium urethræ externum
Orifice of the duct of Bartholin's gland
Excretory duct of Bartholin's gland
Bartholin's gland[5]
Glandula vestibularis major (Bartholini)
Frænum of the clitoris
Frenulum clitoridis
Labium minus or nympha
Labium minus pudendi
Labium majus
Labium majus pudendi
Vestibule of the vagina[3]
Vestibulum vaginæ
Hymen
Hymen (femininus)
Vaginal orifice
Orificium vaginæ
1/1

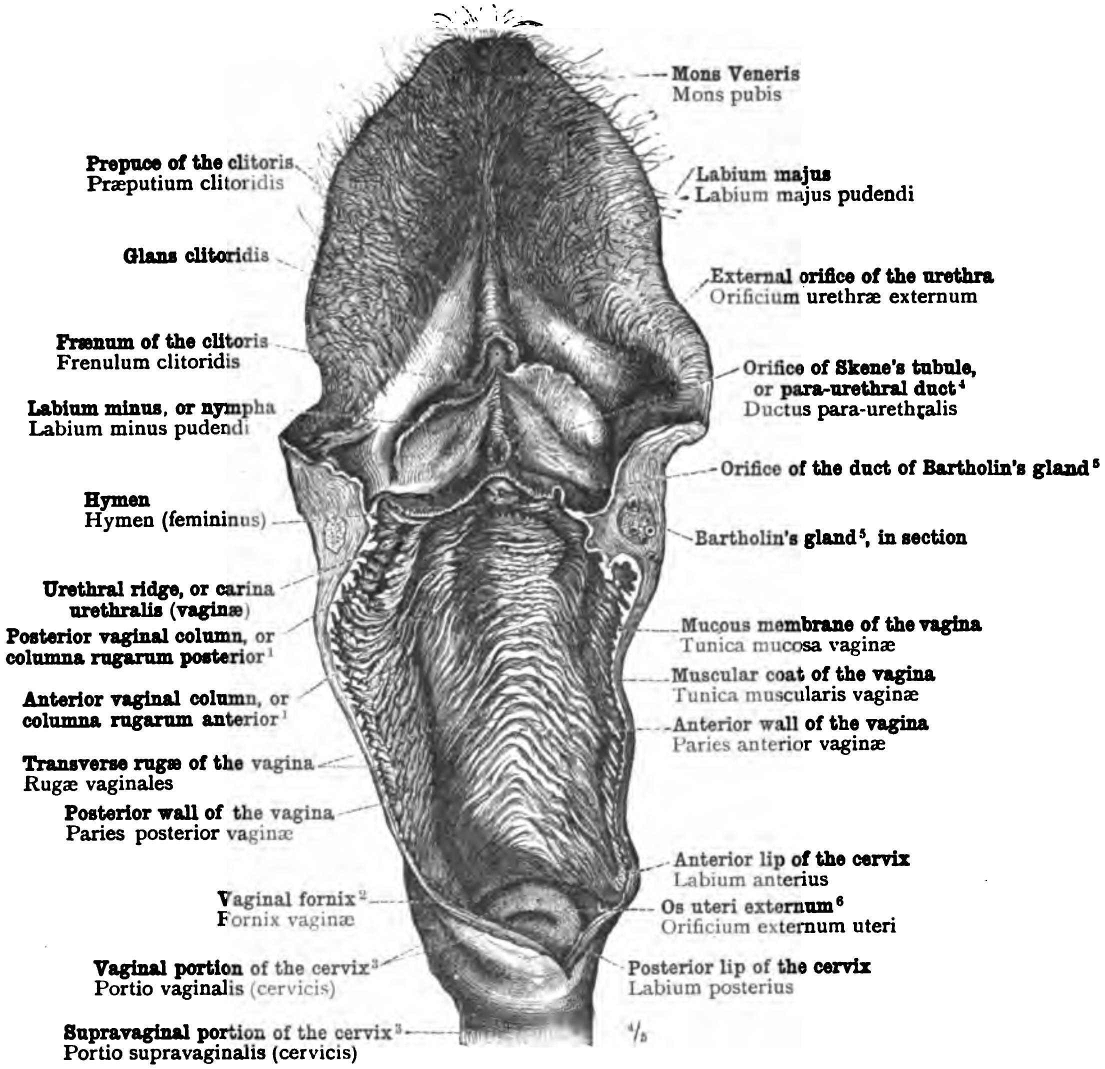
FIG. 885.—FEMALE EXTERNAL GENITAL ORGANS.

The mucous membrane has been removed from the right side of the vestibule[3] and from the vulval area on the right side of the vaginal orifice, and the right labium majus and labium minus have been cut away, to show the relative positions of the crus clitoridis, the vaginal bulb[1] and Bartholin's gland.[5] On the left side the labium majus and labium minus have been drawn outwards.

---

[1] See Appendix, note 91.
[2] See Appendix, note 92.
[3] See Appendix, note 89.
[4] See Appendix, note 90.
[5] Known also as *Duverney's gland* or the *suburethral gland.* (See Appendix, note 66.)

Partes genitales externæ—The female external genital organs.


Mons Veneris
Mons pubis
Prepuce of the clitoris
Præputium clitoridis
Labium majus
Labium majus pudendi
Glans clitoridis
External orifice of the urethra
Orificium urethræ externum
Frænum of the clitoris
Frenulum clitoridis
Orifice of Skene's tubule, or para-urethral duct[4]
Ductus para-urethralis
Labium minus, or nympha
Labium minus pudendi
Orifice of the duct of Bartholin's gland[5]
Hymen
Hymen (femininus)
Bartholin's gland[5], in section
Urethral ridge, or carina urethralis (vaginæ)
Posterior vaginal column, or columna rugarum posterior[1]
Mucous membrane of the vagina
Tunica mucosa vaginæ
Muscular coat of the vagina
Tunica muscularis vaginæ
Anterior vaginal column, or columna rugarum anterior[1]
Anterior wall of the vagina
Paries anterior vaginæ
Transverse rugæ of the vagina
Rugæ vaginales
Posterior wall of the vagina
Paries posterior vaginæ
Anterior lip of the cervix
Labium anterius
Vaginal fornix[2]
Fornix vaginæ
Os uteri externum[6]
Orificium externum uteri
Vaginal portion of the cervix[3]
Portio vaginalis (cervicis)
Posterior lip of the cervix
Labium posterius
Supravaginal portion of the cervix[3]
Portio supravaginalis (cervicis)
4/5

[1] See [2] to p. 514. [2] See Appendix, note 78. [3] See Appendix, note 75. [4] See Appendix, note 88.
[5] *Glandula vestibularis major*, known also as *Duverney's gland* and the *suburethral gland*. (See Appendix, note 66.)
[6] See Appendix, note 67.

FIG. 886.—FEMALE EXTERNAL GENITAL ORGANS OF A VIRGIN, ATTACHED TO THE VAGINA, WHICH HAS BEEN ISOLATED AND OPENED, AND A PORTION OF THE CERVIX UTERI. HYMEN (FEMININUS). THE VAGINAL FORNIX (*see Appendix, note* 78), WITH THE ANTERIOR AND POSTERIOR LIPS OF THE CERVIX, AND THE OS UTERI EXTERNUM (*see Appendix, note* 67). THE VAGINAL COLUMNS, COLUMNÆ RUGARUM, AND THE TRANSVERSE RUGÆ OF THE VAGINA, RUGÆ VAGINALES.

The posterior wall of the vagina has been divided longitudinally throughout to the left of the median line, and has been turned to the right. Near the vestibule (*see Appendix, note* 89) the section passes through the left Bartholin's gland (*see note* 5 *above*).

The Vagina.

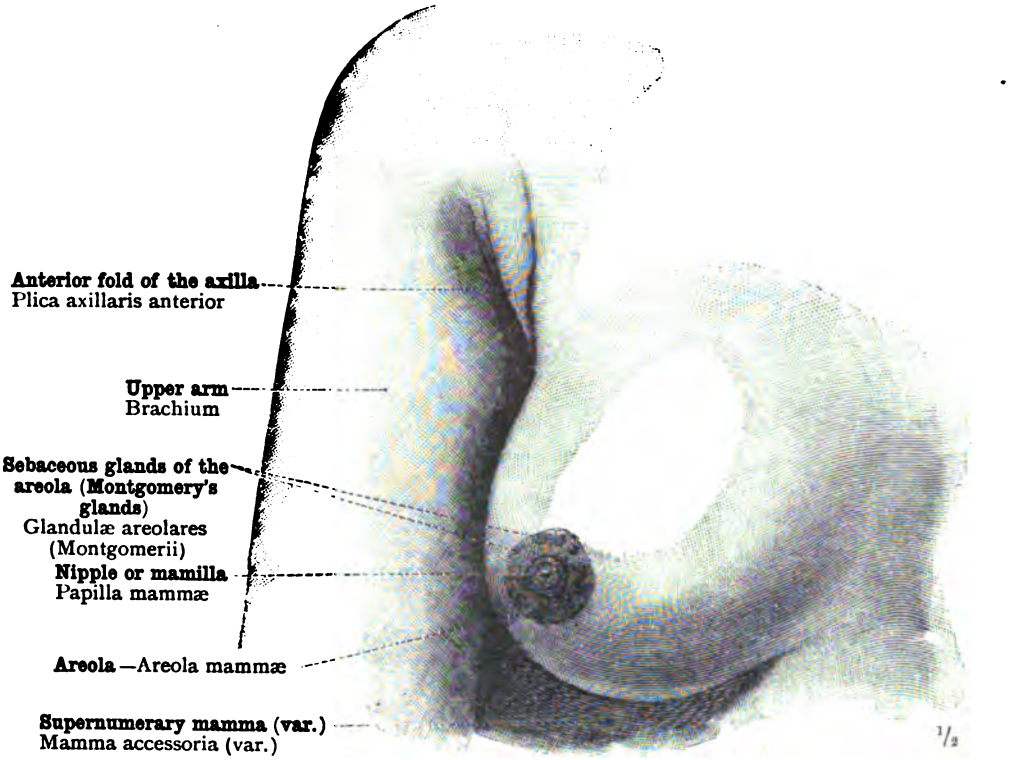

Anterior fold of the axilla
Plica axillaris anterior
Upper arm
Brachium
Sebaceous glands of the areola (Montgomery's glands)
Glandulæ areolares (Montgomerii)
Nipple or mamilla
Papilla mammæ
Areola—Areola mammæ
Supernumerary mamma (var.)
Mamma accessoria (var.)
1/2

FIG. 887.—MAMMA, THE BREAST, OF A VIRGIN AGED EIGHTEEN YEARS.

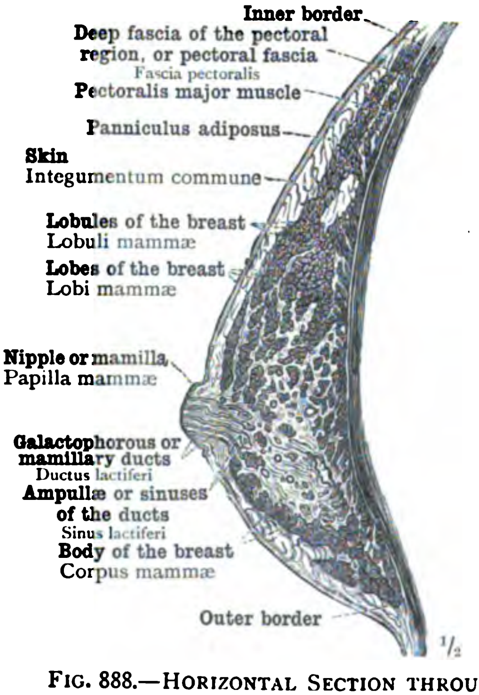


FIG. 888.—HORIZONTAL SECTION THROUGH THE FEMALE BREAST.

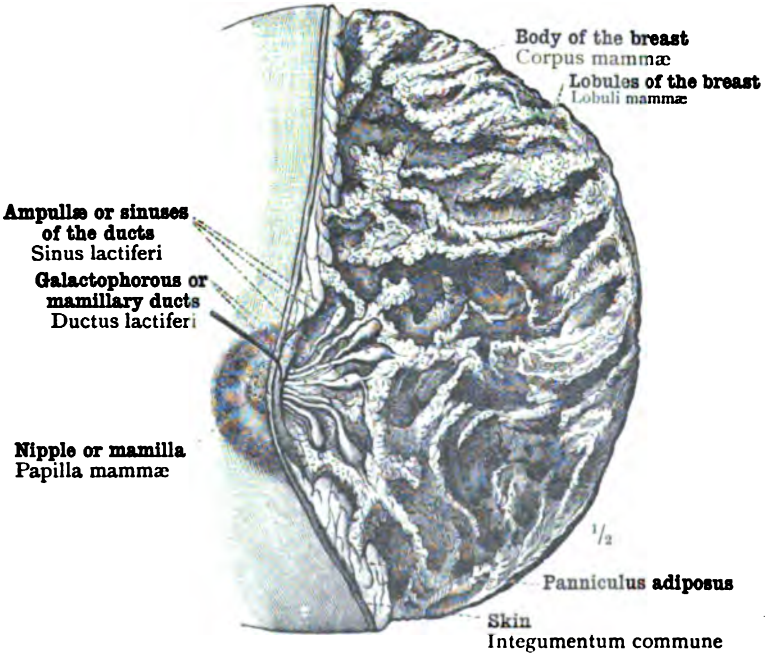


FIG. 889.—BREAST OF A NURSING MOTHER, HARDENED IN STRONG ALCOHOL; FROM ONE HALF OF THE ORGAN THE SKIN AND SUBCUTANEOUS FATTY TISSUE HAVE BEEN REMOVED, AND THE GALACTOPHOROUS OR MAMILLARY DUCTS WITH THEIR SINUSES HAVE BEEN LAID BARE.

Mamma—The breast.

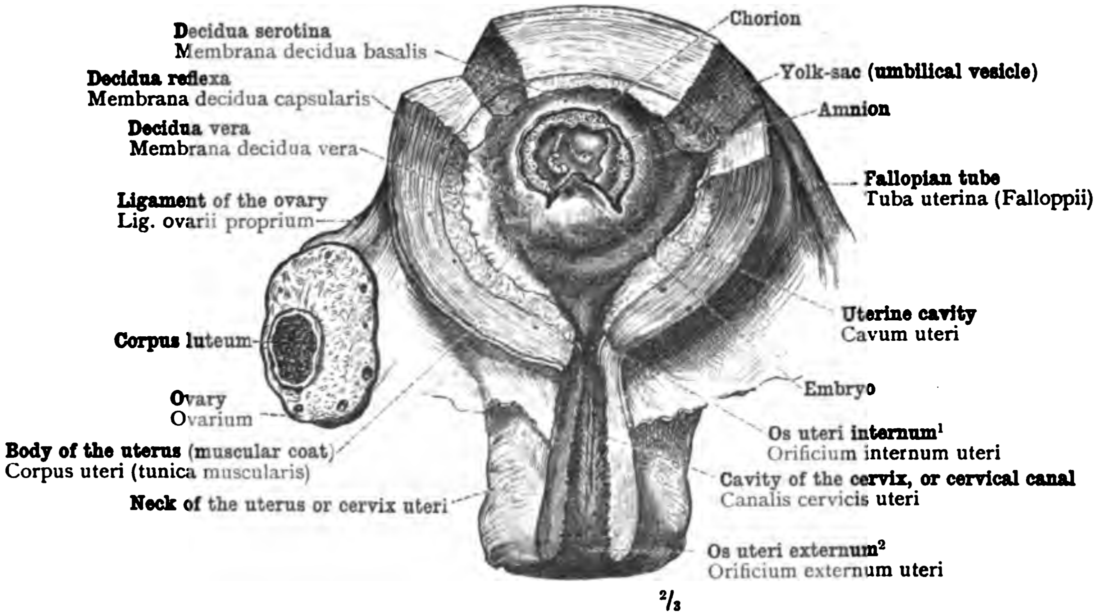


FIG. 890.—UTERUS IN THE FIFTH WEEK OF PREGNANCY, OPENED FROM BEHIND.

By the removal of parts of the membranes the cavity of the amnion has been opened.

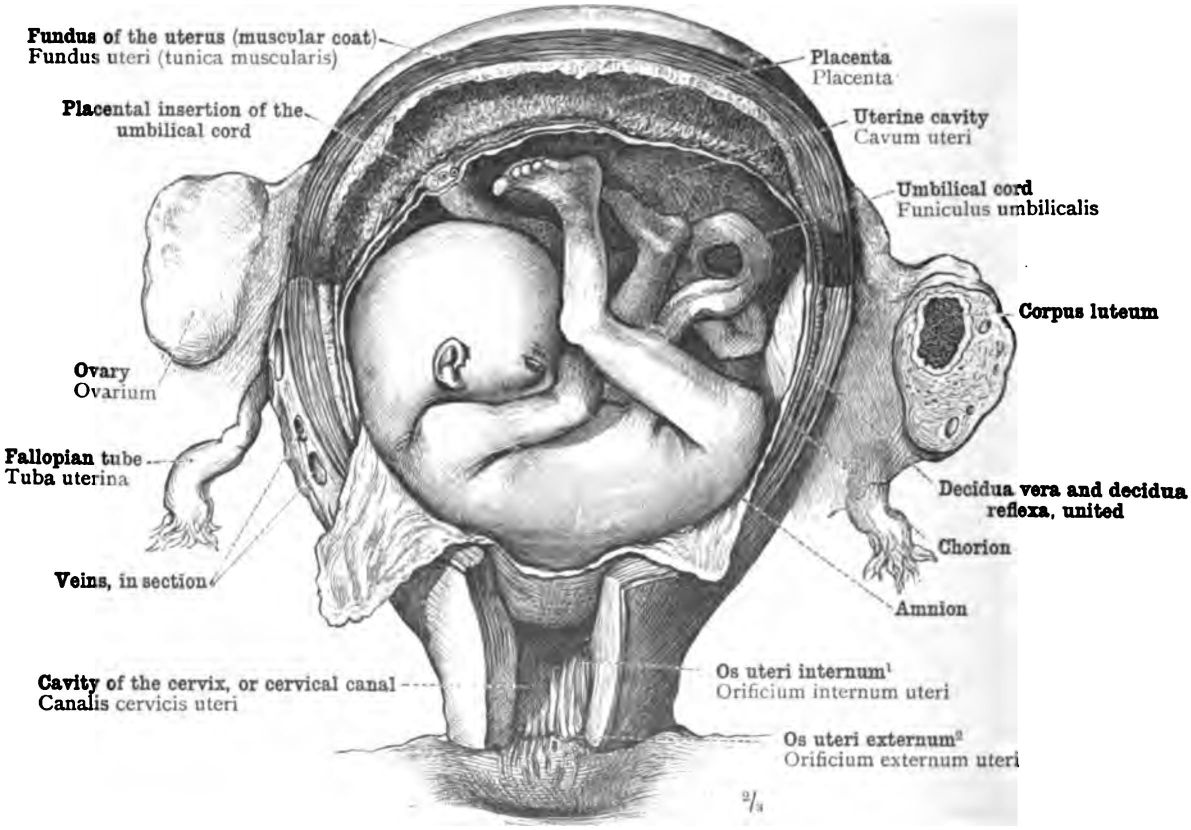


FIG. 891.—UTERUS IN THE SIXTH MONTH OF PREGNANCY (MONTHS OF FOUR WEEKS EACH), OPENED BY THE REMOVAL OF THE POSTERIOR WALL. THE FŒTUS, WITH ITS MEMBRANES, AND THE PLACENTA, IN TRANSVERSE SECTION.

---

[1] See note 5 to p. 511.

[2] See Appendix, note 67.

Uterus gravidus—The gravid uterus.

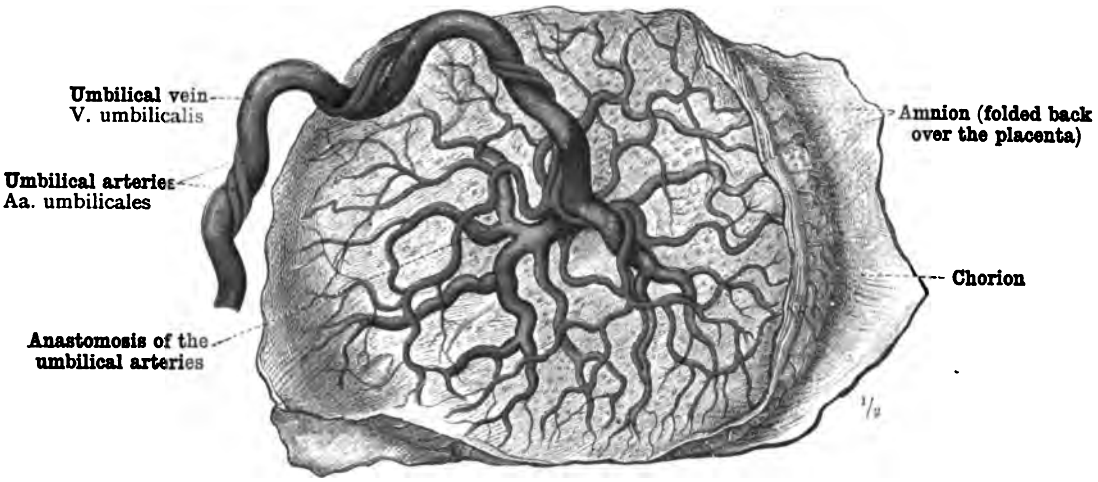

Umbilical vein
V. umbilicalis
Umbilical arteries
Aa. umbilicales
Anastomosis of the umbilical arteries
Amnion (folded back over the placenta)
Chorion
1/2

FIG. 892.—INTERNAL OR FŒTAL SURFACE OF THE PLACENTA AT FULL TERM.
The umbilical vessels have been injected.

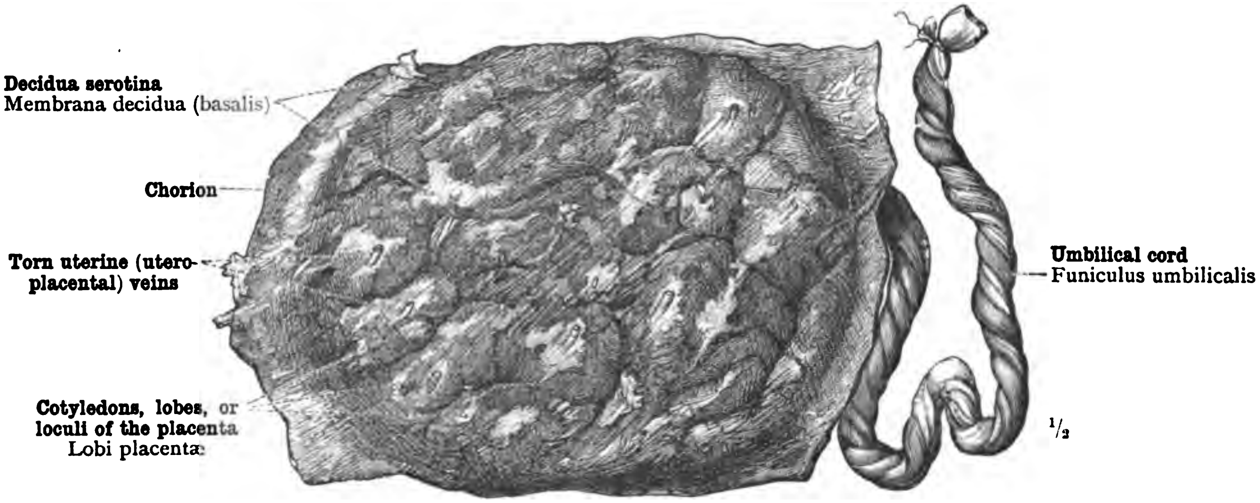
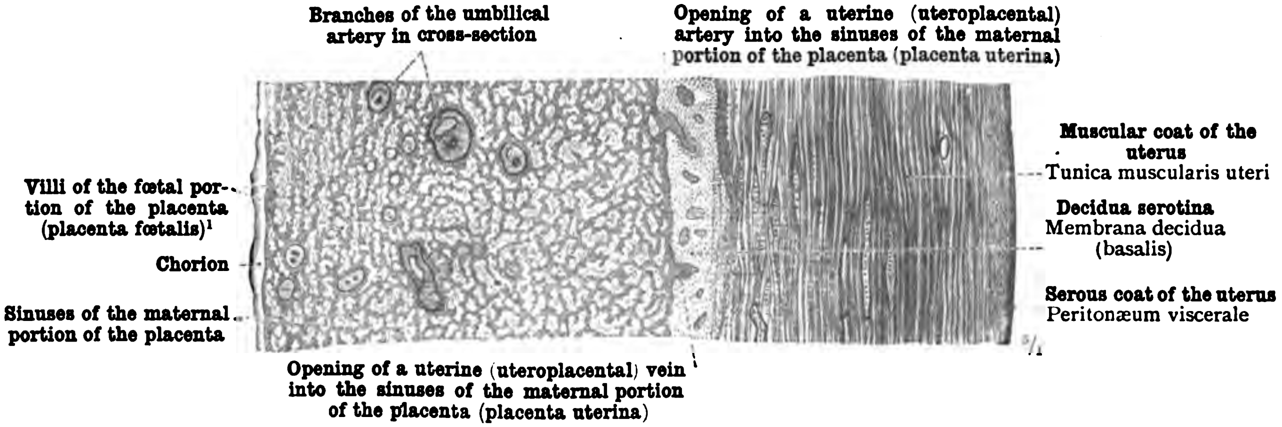

Decidua serotina
Membrana decidua (basalis)
Chorion
Torn uterine (utero-placental) veins
Cotyledons, lobes, or loculi of the placenta
Lobi placentæ
Umbilical cord
Funiculus umbilicalis
1/2

FIG. 893.—EXTERNAL, MATERNAL, OR UTERINE SURFACE OF THE PLACENTA AT FULL TERM, WITH THE UMBILICAL CORD (FUNICULUS UMBILICALIS).


Branches of the umbilical artery in cross-section
Opening of a uterine (uteroplacental) artery into the sinuses of the maternal portion of the placenta (placenta uterina)
Muscular coat of the uterus
Tunica muscularis uteri
Villi of the fœtal portion of the placenta (placenta fœtalis)[1]
Decidua serotina
Membrana decidua (basalis)
Chorion
Serous coat of the uterus
Peritonæum viscerale
Sinuses of the maternal portion of the placenta
5/1
Opening of a uterine (uteroplacental) vein into the sinuses of the maternal portion of the placenta (placenta uterina)

[1] These villi are known indifferently as *fœtal villi* and *chorioni villi.*

FIG. 894.—UTERUS AND PLACENTA IN TRANSVERSE SECTION. SIXTH MONTH OF PREGNANCY (MONTHS OF FOUR WEEKS EACH).

The Placenta.

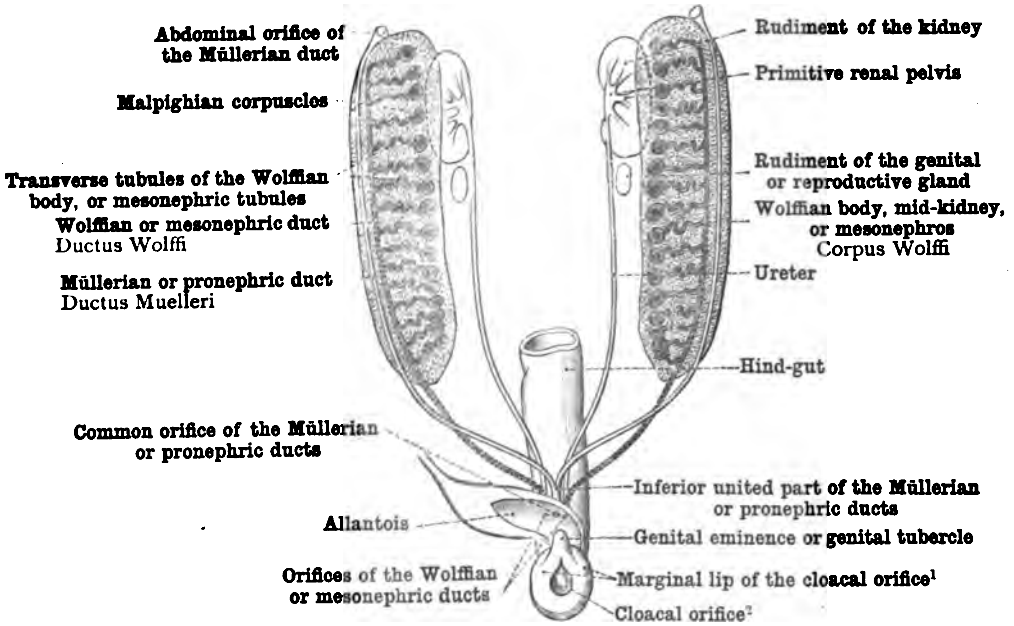

Abdominal orifice of the Müllerian duct
Malpighian corpuscles
Transverse tubules of the Wolffian body, or mesonephric tubules
Wolffian or mesonephric duct
Ductus Wolffi
Müllerian or pronephric duct
Ductus Muelleri
Common orifice of the Müllerian or pronephric ducts
Allantois
Orifices of the Wolffian or mesonephric ducts
Rudiment of the kidney
Primitive renal pelvis
Rudiment of the genital or reproductive gland
Wolffian body, mid-kidney, or mesonephros
Corpus Wolffi
Ureter
Hind-gut
Inferior united part of the Müllerian or pronephric ducts
Genital eminence or genital tubercle
Marginal lip of the cloacal orifice[1]
Cloacal orifice[2]

FIG. 895.—DIAGRAMMATIC REPRESENTATION OF THE PRIMITIVE UROGENITAL ORGANS OF THE EMBRYO PRIOR TO SEXUAL DIFFERENTIATION. THE WOLFFIAN BODY (MID-KIDNEY OR MESONEPHROS) WITH THE WOLFFIAN (MESONEPHRIC) AND MÜLLERIAN (PRONEPHRIC) DUCTS.

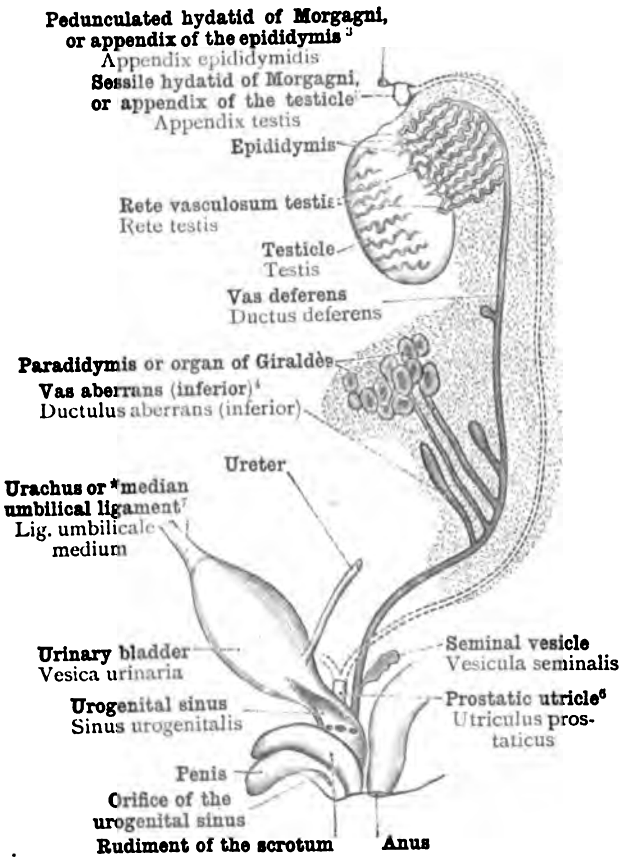


FIG. 896.—DEVELOPMENT OF THE MALE GENITO-URINARY APPARATUS.

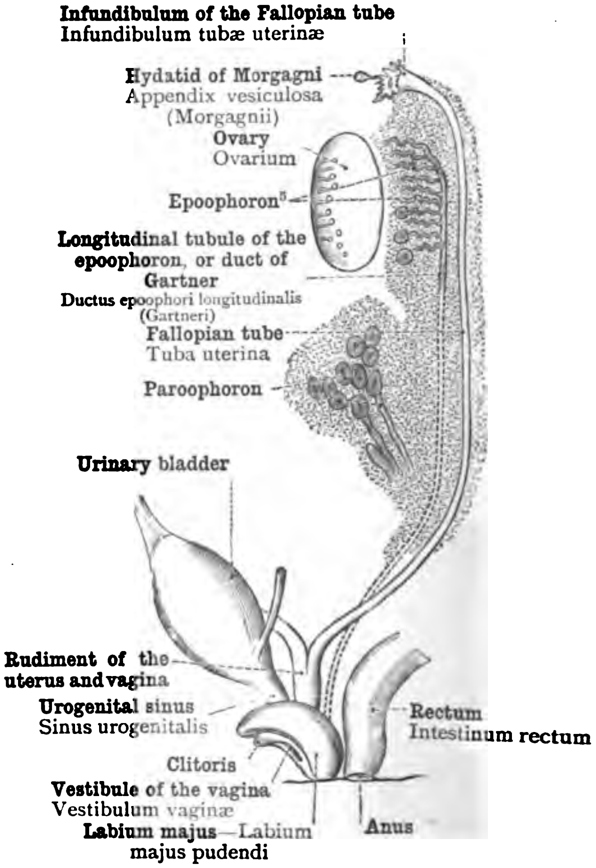

Infundibulum of the Fallopian tube
Infundibulum tubæ uterinæ
Hydatid of Morgagni
Appendix vesiculosa (Morgagnii)
Ovary
Ovarium
Epoophoron[5]
Longitudinal tubule of the epoophoron, or duct of Gartner
Ductus epoophori longitudinalis (Gartneri)
Fallopian tube
Tuba uterina
Paroophoron
Urinary bladder
Rudiment of the uterus and vagina
Urogenital sinus
Sinus urogenitalis
Clitoris
Vestibule of the vagina
Vestibulum vaginæ
Labium majus—Labium majus pudendi
Anus
Rectum
Intestinum rectum

FIG. 897.—DEVELOPMENT OF THE FEMALE GENITO-URINARY APPARATUS.

---

[1] See Appendix, note 93.

[2] See Appendix, note 94.

[3] See Appendix, note 69.

[4] See Appendix, note 71.

[5] Known also as the *parovarium*, or *organ of Rosenmüller*.

[6] Known also as the *prostatic vesicle*, *prostatic sinus*, *sinus pocularis*, and *uterus masculinus*.

[7] See note 3 to p. 387, Part III.

Diagram showing the Development from a Common Type of the Male and the Female Genito-Urinary Apparatus.

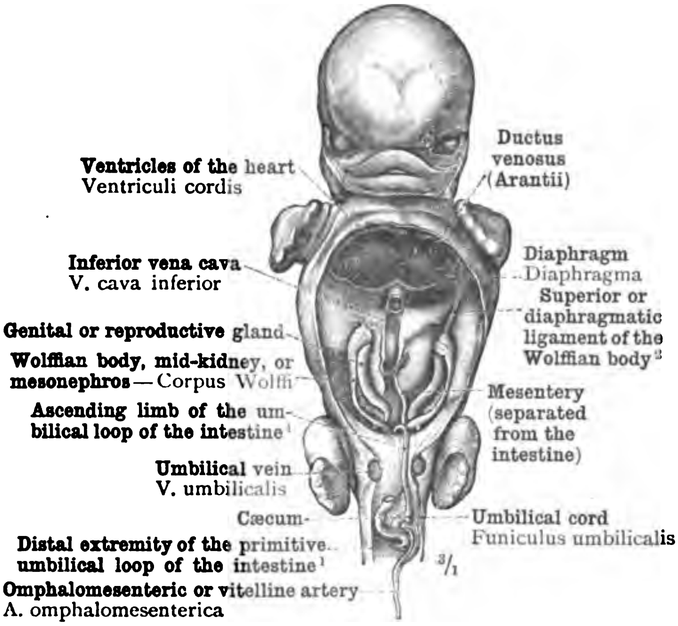

Ventricles of the heart
Ventriculi cordis
Ductus venosus (Arantii)
Inferior vena cava
V. cava inferior
Diaphragm
Diaphragma
Superior or diaphragmatic ligament of the Wolffian body[2]
Genital or reproductive gland
Wolffian body, mid-kidney, or **mesonephros** — Corpus Wolffi
Ascending limb of the um**bilical loop of the intestine**[1]
Mesentery (separated from the intestine)
Umbilical vein
V. umbilicalis
Cæcum
Distal extremity of the primitive **umbilical loop of the** intestine[1]
Umbilical cord
Funiculus umbilicalis
Omphalomesenteric or vitelline artery
A. omphalomesenterica
³/₁

FIG. 898.—HUMAN FŒTUS AT THE END OF THE SIXTH WEEK. THE GENITAL OR REPRODUCTIVE GLANDS AND THE WOLFFIAN BODIES ARE LAID BARE BY THE REMOVAL OF THE LIVER, THE STOMACH, AND THE DESCENDING LIMB OF THE UMBILICAL LOOP OF THE INTESTINE.[1]

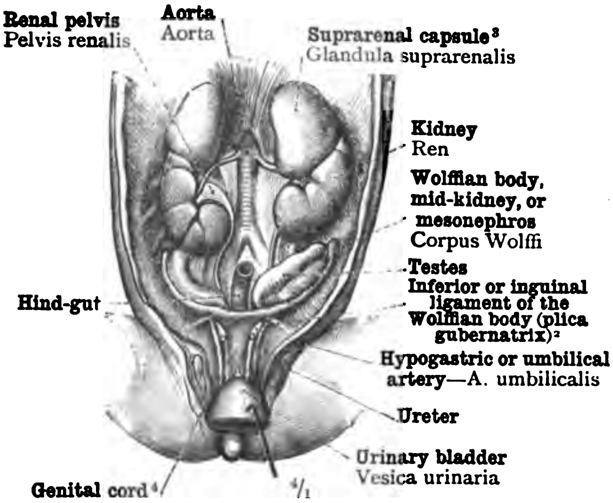

Renal pelvis
Pelvis renalis
Aorta
Aorta
Suprarenal capsule[3]
Glandula suprarenalis
Kidney
Ren
Wolffian body, mid-kidney, or mesonephros
Corpus Wolffi
Testes
Inferior or inguinal ligament of the Wolffian body (plica gubernatrix)[2]
Hind-gut
Hypogastric or umbilical artery—A. umbilicalis
Ureter
Urinary bladder
Vesica urinaria
Genital cord[4]
⁴/₁

FIG. 899.—GENITO-URINARY ORGANS OF A MALE FŒTUS AT THE END OF THE TENTH WEEK.

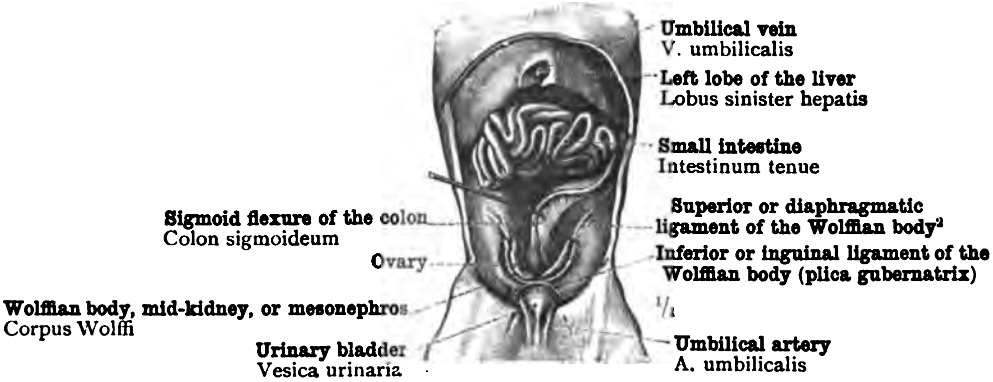

Umbilical vein
V. umbilicalis
Left lobe of the liver
Lobus sinister hepatis
Small intestine
Intestinum tenue
Sigmoid flexure of the colon
Colon sigmoideum
Superior or diaphragmatic ligament of the Wolffian body[2]
Ovary
Inferior or inguinal ligament of the Wolffian body (plica gubernatrix)
Wolffian body, mid-kidney, or mesonephros
Corpus Wolffi
¹/₁
Urinary bladder
Vesica urinaria
Umbilical artery
A. umbilicalis

FIG. 900.—ABDOMINAL ORGANS OF A FEMALE FŒTUS IN THE MIDDLE OF THE FOURTH MONTH (MONTHS OF FOUR WEEKS EACH).

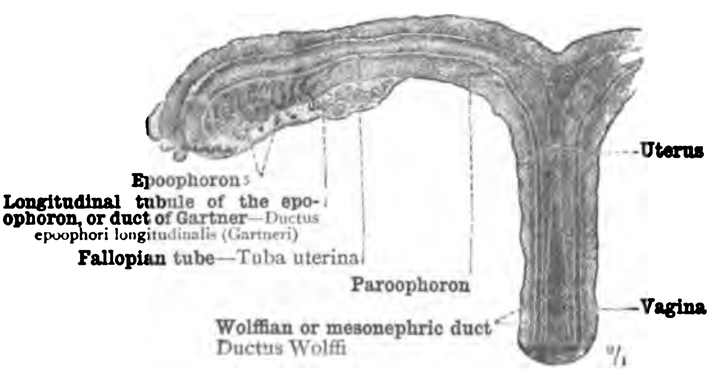

Uterus
Epoophoron[5]
Longitudinal tubule of the epo**ophoron, or duct** of Gartner—Ductus epoophori longitudinalis (Gartneri)
Fallopian tube—Tuba uterina
Paroophoron
Vagina
Wolffian or mesonephric duct
Ductus Wolffi
⁸/₁

FIG. 901.—UTERUS AND FALLOPIAN TUBE OF A THREE AND A HALF MONTHS FŒTUS (MONTHS OF FOUR WEEKS EACH), WITH THE WOLFFIAN DUCT.

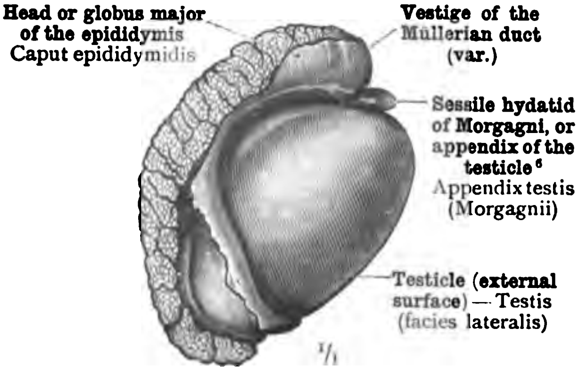

Head or globus major of the epididymis
Caput epididymidis
Vestige of the Müllerian duct (var.)
Sessile hydatid of Morgagni, or appendix of the testicle[6]
Appendix testis (Morgagnii)
Testicle (external surface) — Testis (facies lateralis)
¹/₁

FIG. 902.—TESTICLE OF AN ADULT EXHIBITING A VESTIGE OF THE MÜLLERIAN DUCT.

[1] See note [1] to p. 451.
[2] See Appendix, note 95.
[3] Called also *suprarenal body*, or *adrenal*.
[4] See Appendix, note 96.
[5] Known also as the *parovarium* or organ of Rosenmüller.
[6] See Appendix, note 69.

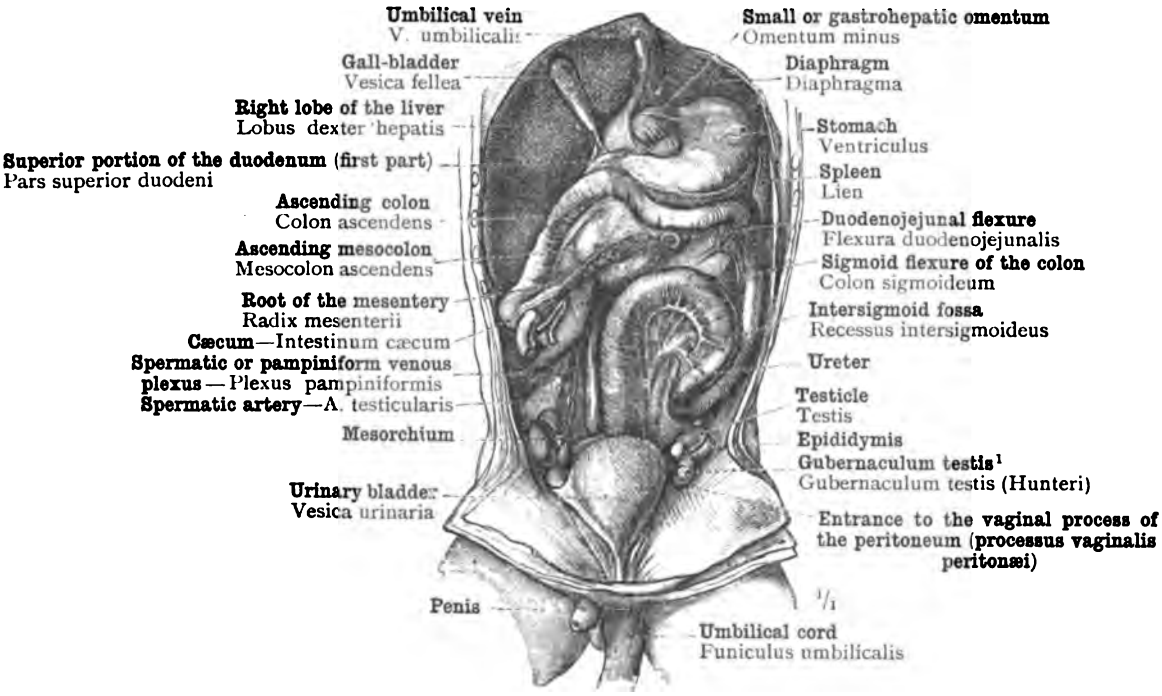


FIG. 903.—ABDOMINAL VISCERA OF A FŒTUS AT THE END OF THE SIXTH MONTH (MONTHS OF FOUR WEEKS EACH), HAVING A BODY-LENGTH OF 28 CENTIMETRES (11 INCHES).

The small intestine has been cut away, and the liver drawn upwards as far as possible. The testicle and the epididymis are in the inguinal region.

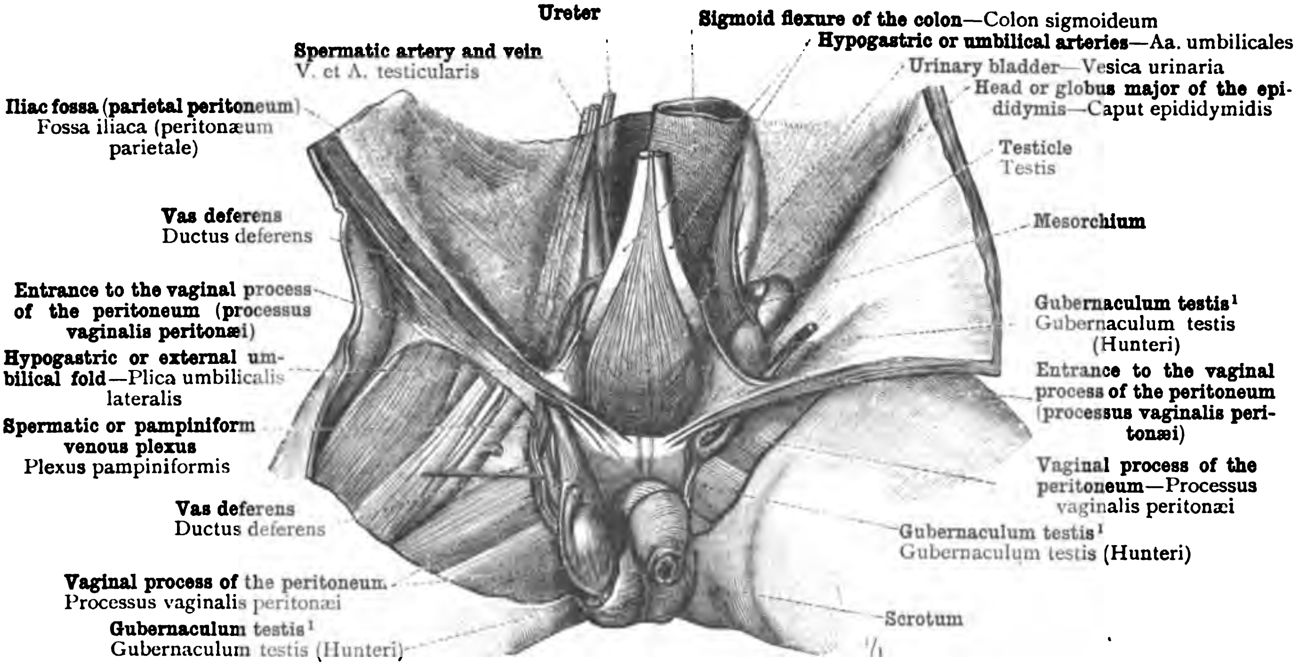

Ureter
Spermatic artery and vein
V. et A. testicularis
Iliac fossa (parietal peritoneum)
Fossa iliaca (peritonæum parietale)
Vas deferens
Ductus deferens
Entrance to the vaginal process of the peritoneum (processus vaginalis peritonæi)
Hypogastric or external umbilical fold—Plica umbilicalis lateralis
Spermatic or pampiniform venous plexus
Plexus pampiniformis
Vas deferens
Ductus deferens
Vaginal process of the peritoneum
Processus vaginalis peritonæi
Gubernaculum testis¹
Gubernaculum testis (Hunteri)
Sigmoid flexure of the colon—Colon sigmoideum
Hypogastric or umbilical arteries—Aa. umbilicales
Urinary bladder—Vesica urinaria
Head or globus major of the epididymis—Caput epididymidis
Testicle
Testis
Mesorchium
Gubernaculum testis¹
Gubernaculum testis (Hunteri)
Entrance to the vaginal process of the peritoneum (processus vaginalis peritonæi)
Vaginal process of the peritoneum—Processus vaginalis peritonæi
Gubernaculum testis¹
Gubernaculum testis (Hunteri)
Scrotum
¹/₁

FIG. 904.—PELVIC REGION OF A FŒTUS IN THE MIDDLE OF THE NINTH MONTH (MONTHS OF FOUR WEEKS EACH), HAVING A BODY-LENGTH OF 42 CENTIMETRES (16½ INCHES).

The anterior abdominal wall has been opened. The right testicle has already descended into the scrotum, whilst the left is still above the entrance to the inguinal canal. On the right side the spermatic or pampiniform venous plexus, which lies behind the vaginal process of the peritoneum, has been separated from this latter and drawn outwards.

---

[1] See Appendix, note 95.

Descensus testis—Descent of the testicles.

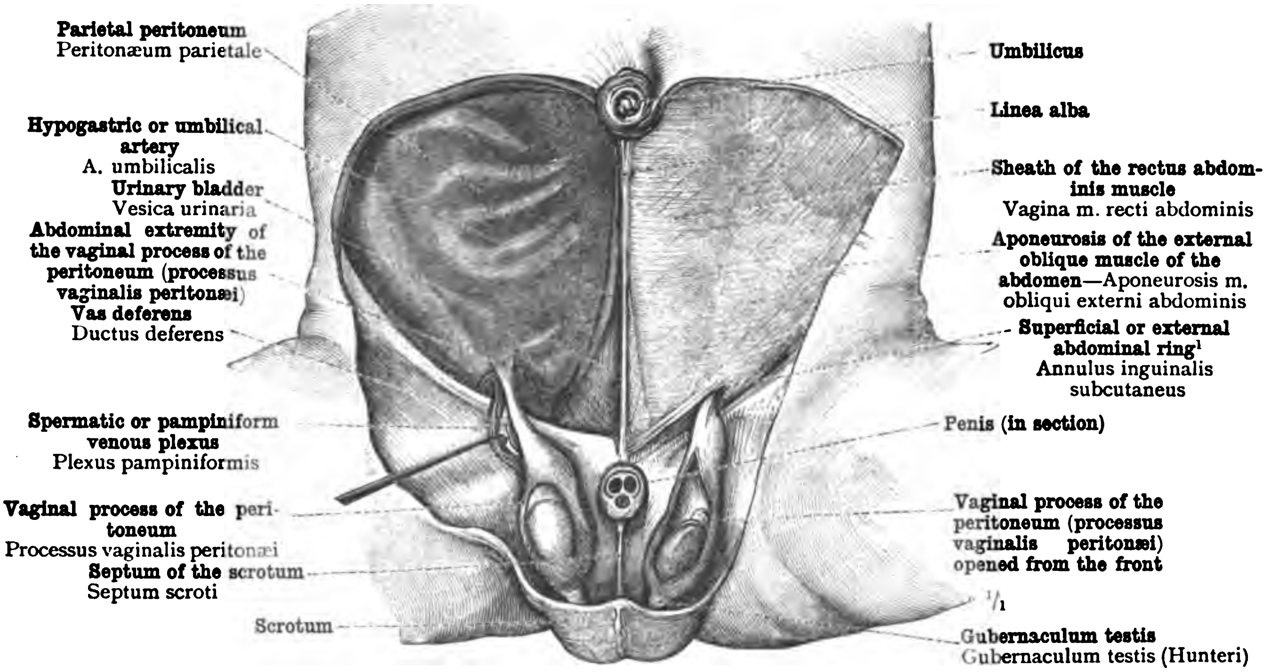

Parietal peritoneum
Peritonæum parietale
Hypogastric or umbilical artery
A. umbilicalis
Urinary bladder
Vesica urinaria
Abdominal extremity of the vaginal process of the peritoneum (processus vaginalis peritonæi)
Vas deferens
Ductus deferens
Spermatic or pampiniform venous plexus
Plexus pampiniformis
Vaginal process of the peritoneum
Processus vaginalis peritonæi
Septum of the scrotum
Septum scroti
Scrotum
Umbilicus
Linea alba
Sheath of the rectus abdominis muscle
Vagina m. recti abdominis
Aponeurosis of the external oblique muscle of the abdomen—Aponeurosis m. obliqui externi abdominis
Superficial or external abdominal ring[1]
Annulus inguinalis subcutaneus
Penis (in section)
Vaginal process of the peritoneum (processus vaginalis peritonæi) opened from the front
1/1
Gubernaculum testis
Gubernaculum testis (Hunteri)

Fig. 905.—Abdominal and Pelvic Regions of a Fœtus in the Middle of the Tenth Month (Months of Four Weeks Each), having a Body-Length of 47 Centimetres (18½ Inches).

Both testicles are in the scrotum ; the vaginal process of the peritoneum, processus vaginalis peritonæi, still communicates freely with the abdominal cavity. On the right side of the body, all the layers of the abdominal wall except the parietal peritoneum have been removed ; on the left side of the body, the sheath of the rectus abdominis muscle and the aponeurosis of the external oblique muscle of the abdomen with the superficial or external abdominal ring (external inguinal aperture) are displayed. The left vaginal process of the peritoneum has been opened by an incision through its anterior wall.

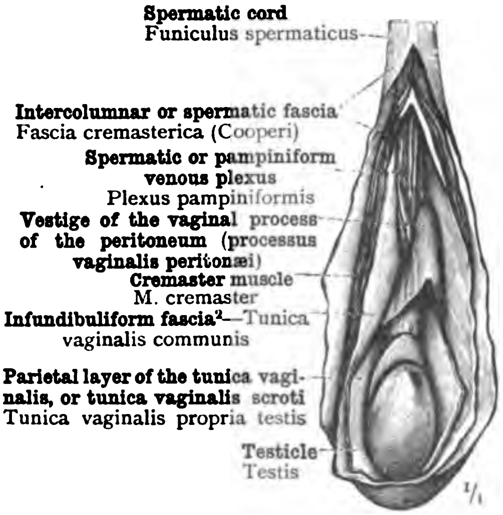

Spermatic cord
Funiculus spermaticus
Intercolumnar or spermatic fascia
Fascia cremasterica (Cooperi)
Spermatic or pampiniform venous plexus
Plexus pampiniformis
Vestige of the vaginal process of the peritoneum (processus vaginalis peritonæi)
Cremaster muscle
M. cremaster
Infundibuliform fascia[2]—Tunica vaginalis communis
Parietal layer of the tunica vaginalis, or tunica vaginalis scroti
Tunica vaginalis propria testis
Testicle
Testis
1/1

Fig. 906.—The Spermatic Cord of a Boy aged Two Months.

The coverings of the cord and the testicle have been divided to expose these structures. A serous pouch, the vestige of the vaginal process of the peritoneum (processus vaginalis peritonæi), runs up along the cord for more than half an inch.

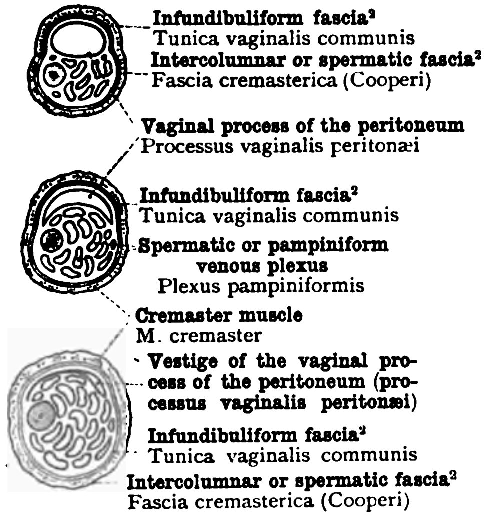

Infundibuliform fascia[2]
Tunica vaginalis communis
Intercolumnar or spermatic fascia[2]
Fascia cremasterica (Cooperi)
Vaginal process of the peritoneum
Processus vaginalis peritonæi
Infundibuliform fascia[2]
Tunica vaginalis communis
Spermatic or pampiniform venous plexus
Plexus pampiniformis
Cremaster muscle
M. cremaster
Vestige of the vaginal process of the peritoneum (processus vaginalis peritonæi)
Infundibuliform fascia[2]
Tunica vaginalis communis
Intercolumnar or spermatic fascia[2]
Fascia cremasterica (Cooperi)

Fig. 907.—Diagrammatic Sections of the Spermatic Cord showing the Closure of the Vaginal Process of the Peritoneum (Processus Vaginalis Peritonæi).

Descensus testis—Descent of the testicles.

---

[1] Or *external inguinal aperture.*

[2] See Appendix, note 68.

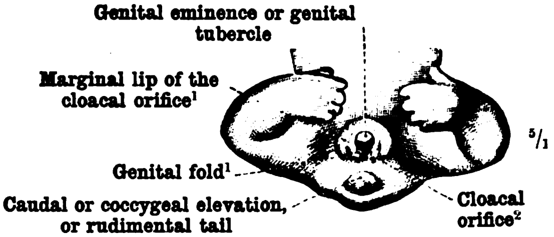

Genital eminence or genital tubercle
Marginal lip of the cloacal orifice[1]
Genital fold[1]
Caudal or coccygeal elevation, or rudimental tail
Cloacal orifice[2]
5/1

FIG. 908.—EXTERNAL GENITAL ORGANS OF A FŒTUS IN THE SEVENTH WEEK.

The urinary and genital canals unite distally with the alimentary canal to form a common cavity, the cloaca,[2] by which they communicate with the exterior.

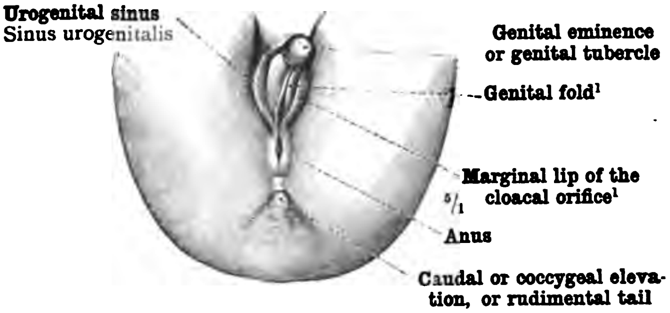

Urogenital sinus
Sinus urogenitalis
Genital eminence or genital tubercle
Genital fold[1]
Marginal lip of the cloacal orifice[1]
5/1
Anus
Caudal or coccygeal elevation, or rudimental tail

FIG. 909.—EXTERNAL GENITAL ORGANS OF A HUMAN FŒTUS IN THE BEGINNING OF THE THIRD MONTH (MONTHS OF FOUR WEEKS EACH), HAVING A BODY-LENGTH OF 4·5 CENTIMETRES (1¾ INCHES).

The division of the cloaca into a dorsal or anal and a ventral or urogenital part (urogenital sinus) has begun.

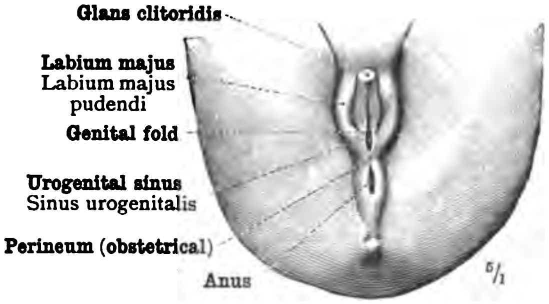


FIG. 910.—EXTERNAL GENITAL ORGANS OF A FEMALE FŒTUS IN THE MIDDLE OF THE THIRD MONTH (MONTHS OF FOUR WEEKS EACH), HAVING A BODY-LENGTH OF 5·6 CENTIMETRES (2⅛ INCHES).

The separation of the anus from the urogenital sinus is completed.

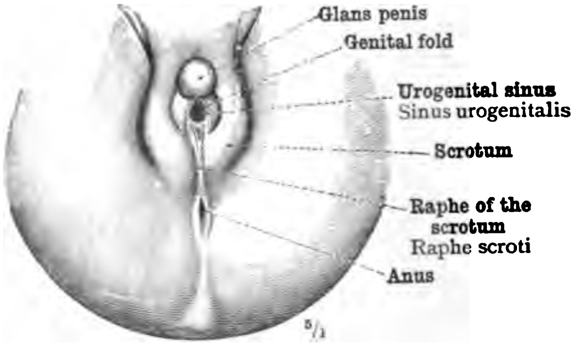


FIG. 911.—EXTERNAL GENITAL ORGANS OF A MALE FŒTUS IN THE BEGINNING OF THE FOURTH MONTH (MONTHS OF FOUR WEEKS EACH), HAVING A BODY-LENGTH OF 8·1 CENTIMETRES (3⅛ INCHES). UNION OF THE GENITAL FOLDS TO FORM THE URETHRA.[1]

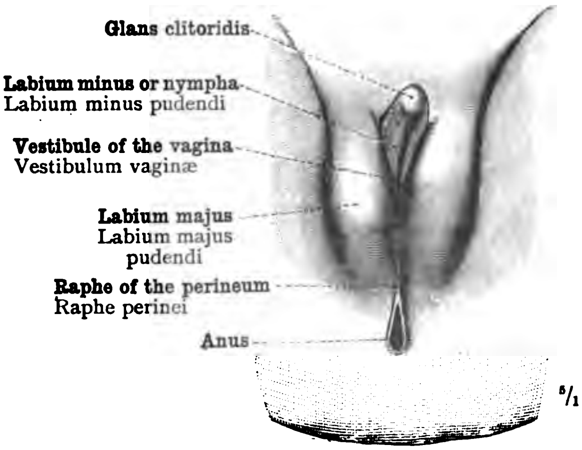


FIG. 912.—EXTERNAL GENITAL ORGANS OF A FEMALE FŒTUS AT THE END OF THE FIFTH MONTH (MONTHS OF FOUR WEEKS EACH), HAVING A BODY-LENGTH OF 11·5 CENTIMETRES (4½ INCHES).

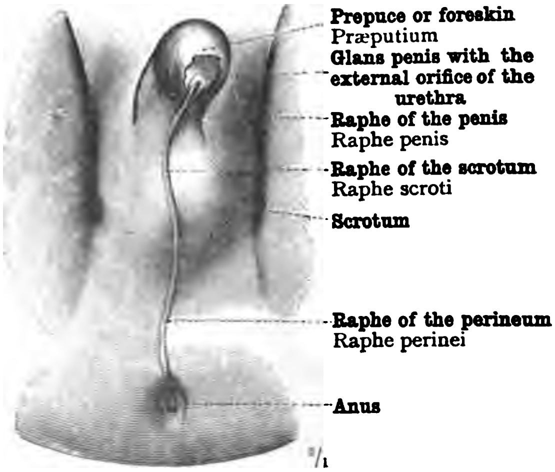


FIG. 913.—EXTERNAL GENITAL ORGANS OF A MALE FŒTUS AT THE END OF THE FIFTH MONTH (MONTHS OF FOUR WEEKS EACH), HAVING A BODY-LENGTH OF 12 CENTIMETRES (4¾ INCHES).

---

[1] See Appendix, note 93.

[2] See Appendix, note 94.

The Development of the External Genital Organs.

THE MUSCLES OF THE PERINEUM

AND

THE TOPOGRAPHICAL ANATOMY OF THE PELVIC VISCERA

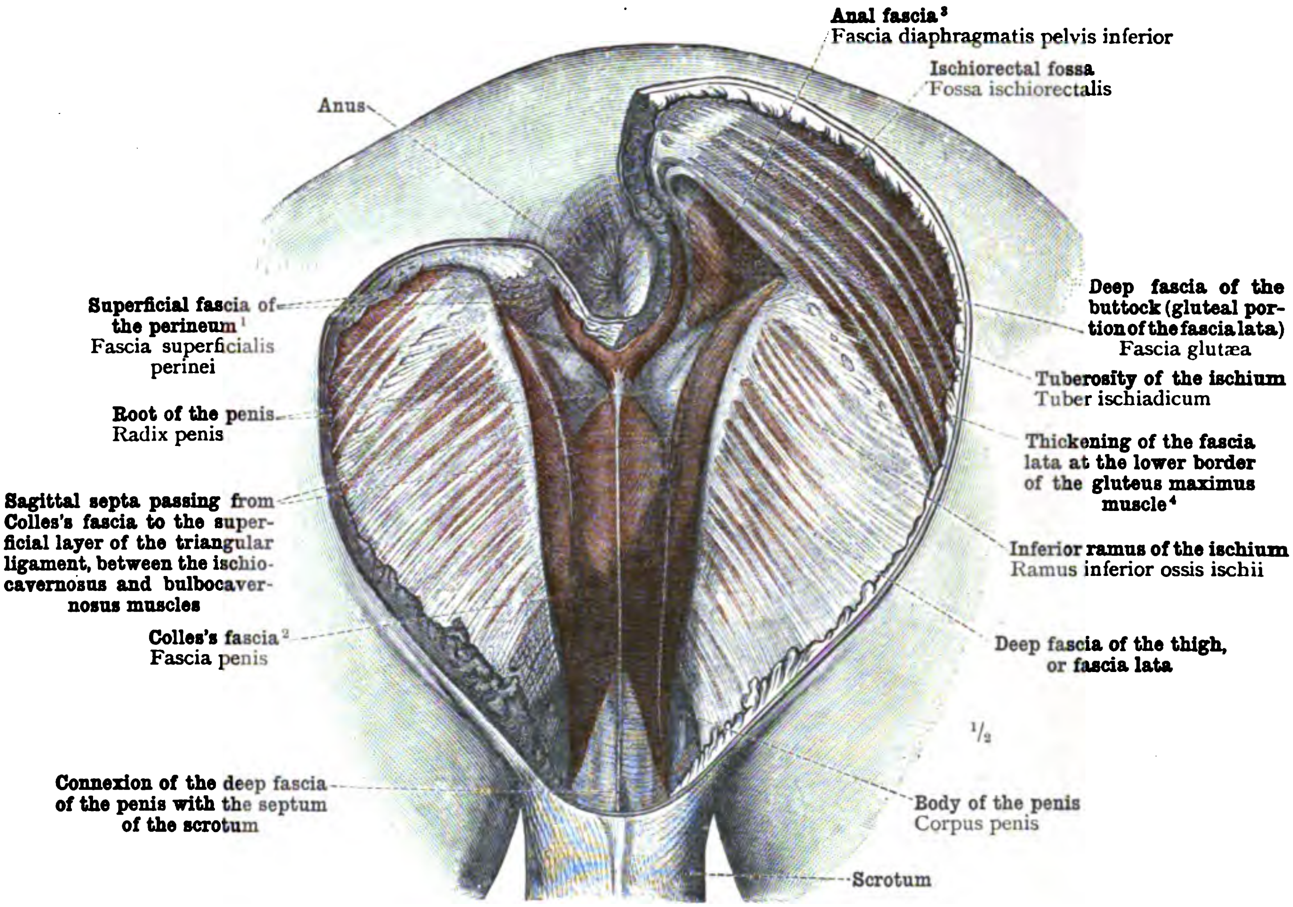

Anal fascia[3]
Fascia diaphragmatis pelvis inferior
Ischiorectal fossa
Fossa ischiorectalis
Anus
Superficial fascia of the perineum[1]
Fascia superficialis perinei
Root of the penis
Radix penis
Sagittal septa passing from Colles's fascia to the superficial layer of the triangular ligament, between the ischiocavernosus and bulbocavernosus muscles
Colles's fascia[2]
Fascia penis
Connexion of the deep fascia of the penis with the septum of the scrotum
Deep fascia of the buttock (gluteal portion of the fascia lata)
Fascia glutæa
Tuberosity of the ischium
Tuber ischiadicum
Thickening of the fascia lata at the lower border of the gluteus maximus muscle[4]
Inferior ramus of the ischium
Ramus inferior ossis ischii
Deep fascia of the thigh, or fascia lata
1/2
Body of the penis
Corpus penis
Scrotum

FIG. 914.—THE SUPERFICIAL LAYERS OF THE PERINEAL REGION OF THE MALE.

On the right side of the body, the skin and the superficial fascia[1] having been removed as far back as the posterior limit of the perineal region, the fat has been cleared out of the ischiorectal fossa, and the anal fascia covering the inferior surface of the levator ani muscle (fascia diaphragmatis pelvis inferior—*see Appendix*, *notes* 85 *and* 106) has been laid bare. On the left side of the body, in the posterior part of the perineal region, the skin and the superficial fascia have not been entirely removed, and the fat occupying the ischiorectal fossa has been left undisturbed.

THE POSTERIOR PART OF THE DEEP FASCIA OF THE PENIS, OR COLLES'S FASCIA,[2] AND ITS CONNEXIONS WITH THE PERIMYSIUM OF THE EXTERNAL OR SUPERFICIAL SPHINCTER OF THE ANUS AND WITH THE SEPTUM OF THE SCROTUM. THE PARTS OF THE DEEP FASCIA OF THE THIGH (FASCIA LATA) ADJOINING THE PERINEUM, INCLUDING THE LOWER PART OF THE DEEP FASCIA OF THE BUTTOCK OR GLUTEAL PORTION OF THE FASCIA LATA.[4]

Regio perinealis—The perineal region.

---

[1] Sometimes distinguished in England as the *superficial layer* of the superficial fascia, *Colles's fascia* being then called the *deep layer* of the same. The former is, however, the true superficial fascia, and is continuous with the dartos layer of the scrotum.—TR.

[2] *Colles's Fascia.*—This is the posterior part of what is called by the author *fascia penis* (*see note* [1] *to p.* 508). Though in fact continuous with the deep fascia of the penis and scrotum, this fascia is in the anterior half of the perineal region (for it does not extend into the posterior half of that region), always distinguished by English anatomists by a separate name. It is usually, and most suitably, known as *Colles's fascia*, but is sometimes called the *deep layer of the superficial fascia* (*see note* [1] *above*), and sometimes the *deep perineal fascia*. The last name should be avoided, since it is liable to cause confusion, having been applied also to the triangular ligament of the urethra.—TR.

[3] See Appendix, note 85.

[4] *The deep fascia of the buttock or gluteal portion of the fascia lata* (the *fascia glutæa* of the author) is thick and white where it overlies the gluteus medius in front of the gluteus maximus muscle, representing here an obsolete anterior portion of the latter muscle. At the upper border of the gluteus maximus, it divides into two thin layers to enclose that muscle; and when these reunite at the lower border there is again a thickening, a dense band of transverse fibres being formed. This is perforated a little external to the tuberosity of the ischium, by the inferior or long pudendal branch of the small sciatic nerve; and further out, by the ascending or recurrent gluteal cutaneous branches of the same nerve.—TR.

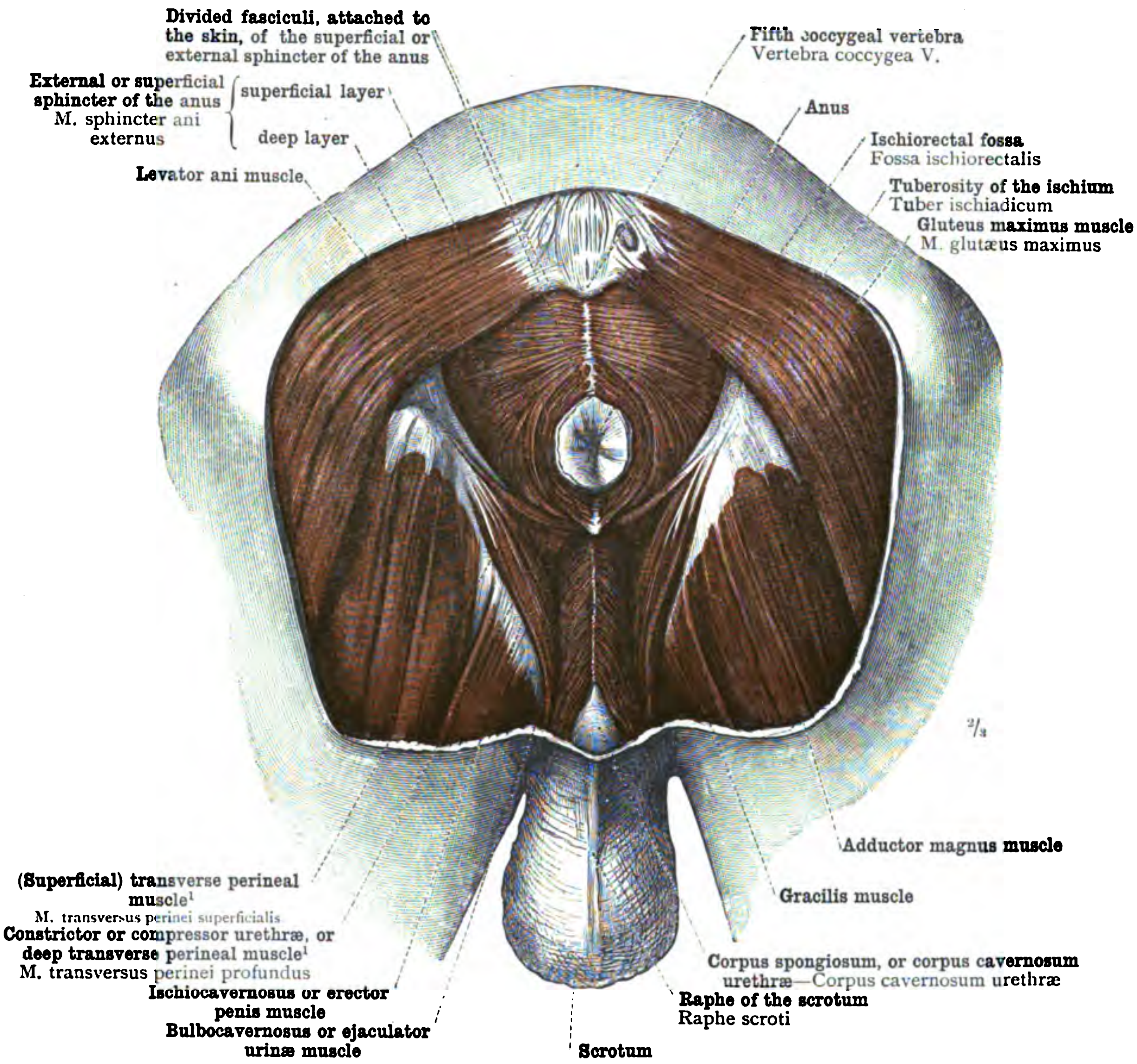

Divided fasciculi, attached to the skin, of the superficial or external sphincter of the anus
External or superficial sphincter of the anus
M. sphincter ani externus
superficial layer
deep layer
Levator ani muscle
Fifth coccygeal vertebra
Vertebra coccygea V.
Anus
Ischiorectal fossa
Fossa ischiorectalis
Tuberosity of the ischium
Tuber ischiadicum
Gluteus maximus muscle
M. glutæus maximus
2/3
Adductor magnus muscle
Gracilis muscle
(Superficial) transverse perineal muscle[1]
M. transversus perinei superficialis
Constrictor or compressor urethræ, or deep transverse perineal muscle[1]
M. transversus perinei profundus
Ischiocavernosus or erector penis muscle
Bulbocavernosus or ejaculator urinæ muscle
Scrotum
Corpus spongiosum, or corpus cavernosum urethræ—Corpus cavernosum urethræ
Raphe of the scrotum
Raphe scroti

FIG. 915.—THE MUSCLES OF THE PERINEAL REGION OF THE MALE SEEN FROM BELOW AND BEHIND: LEVATOR ANI MUSCLE; MUSCULUS SPHINCTER ANI EXTERNUS, THE EXTERNAL OR SUPERFICIAL SPHINCTER OF THE ANUS; BULBOCAVERNOSUS OR EJACULATOR URINÆ MUSCLE; ISCHIOCAVERNOSUS OR ERECTOR PENIS MUSCLE; MUSCULUS TRANSVERSUS PERINEI SUPERFICIALIS, THE (SUPERFICIAL) TRANSVERSE PERINEAL MUSCLE;[1] MUSCULUS TRANSVERSUS PERINEI PROFUNDUS, THE CONSTRICTOR OR COMPRESSOR URETHRÆ, OR DEEP TRANSVERSE PERINEAL MUSCLE.[1] THE ADJOINING PORTIONS OF THE GLUTEUS MAXIMUS, ADDUCTOR MAGNUS, AND GRACILIS MUSCLES.

Behind the anus, certain fasciculi of the superficial or external sphincter of the anus, attached to the skin and the anococcygeal ligament[2], have been divided in removing the skin and the ligament; in front of the anus, the fasciculi of the sphincter attached to the integument close to the median line have been left intact with the part of the superficial fascia in which they are inserted (the *central point of the perineum* of English anatomists).

---

[1] Toldt calls the *constrictor* or *compressor urethræ* muscle of English anatomists the ***transversus perinei profundus*** (the *deep* transverse perineal muscle), in contradistinction to the *transversus perinei superficialis* or *superficial* transverse perineal muscle. In England, however, the latter muscle is commonly spoken of as the ***transversus perinei*** muscle without qualification; whilst the hindmost, transverse fibres of the constrictor or compressor urethræ are occasionally distinguished as the ***transversus perinei profundus*** muscle.—TR.

[2] *Ligamentum anococcygeum*, the *anococcygeal ligament*, is a firm band of areolar tissue stretching in the median line from the tip of the coccyx to the skin of the hinder angle of the anus. It gives origin on each side to the fibres of the superficial or external sphincter of the anus.—TR.

Musculi perinei—Muscles of the perineum.

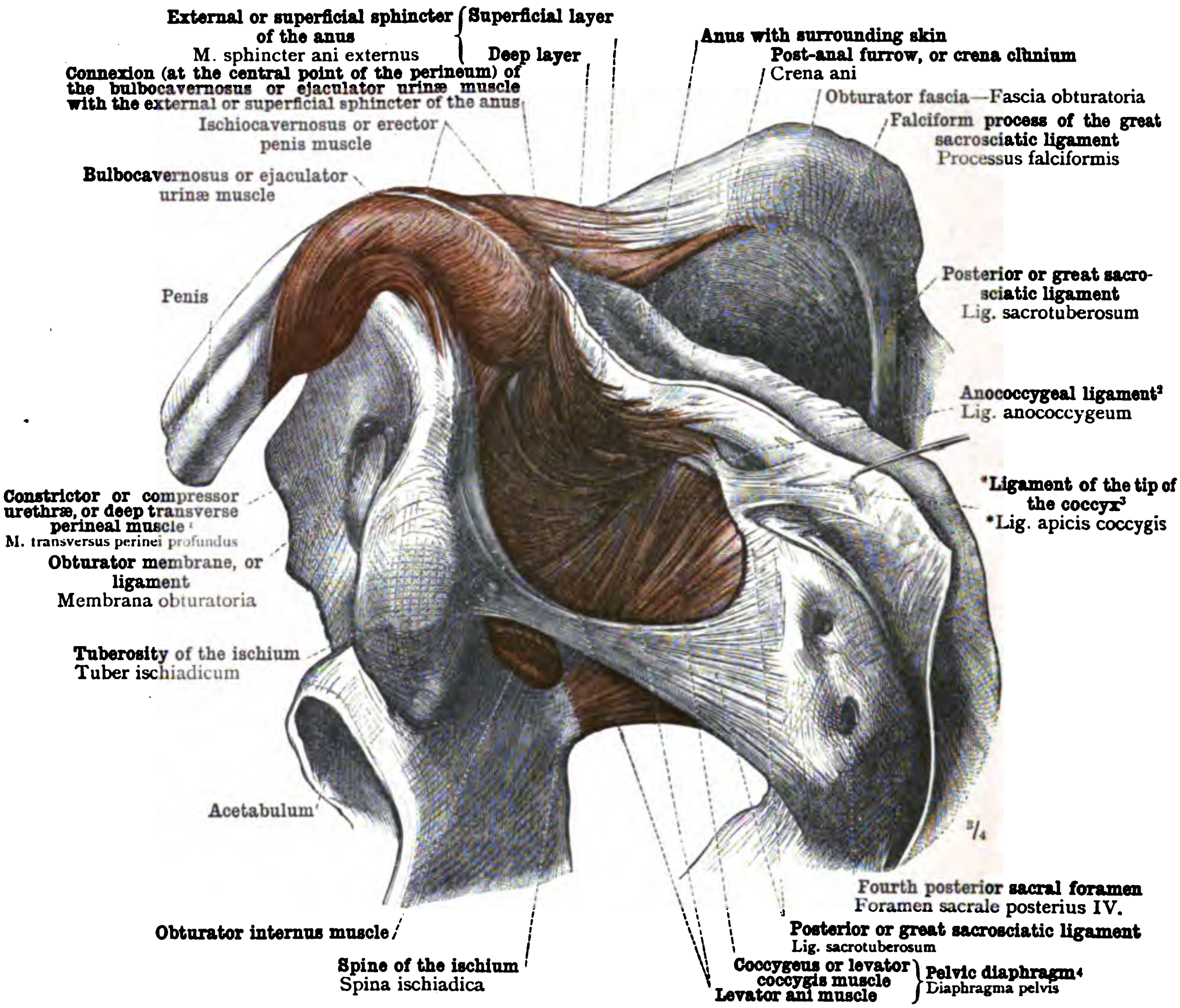

External or superficial sphincter of the anus
M. sphincter ani externus
Superficial layer
Deep layer
Connexion (at the central point of the perineum) of the bulbocavernosus or ejaculator urinæ muscle with the external or superficial sphincter of the anus
Ischiocavernosus or erector penis muscle
Bulbocavernosus or ejaculator urinæ muscle
Penis
Constrictor or compressor urethræ, or deep transverse perineal muscle[1]
M. transversus perinei profundus
Obturator membrane, or ligament
Membrana obturatoria
Tuberosity of the ischium
Tuber ischiadicum
Acetabulum
Obturator internus muscle
Spine of the ischium
Spina ischiadica
Anus with surrounding skin
Post-anal furrow, or crena clunium
Crena ani
Obturator fascia—Fascia obturatoria
Falciform process of the great sacrosciatic ligament
Processus falciformis
Posterior or great sacrosciatic ligament
Lig. sacrotuberosum
Anococcygeal ligament[2]
Lig. anococcygeum
*Ligament of the tip of the coccyx[3]
*Lig. apicis coccygis
3/4
Fourth posterior sacral foramen
Foramen sacrale posterius IV.
Posterior or great sacrosciatic ligament
Lig. sacrotuberosum
Coccygeus or levator coccygis muscle
Levator ani muscle
Pelvic diaphragm[4]
Diaphragma pelvis

FIG. 916.—THE MUSCLES OF THE PERINEAL REGION OF THE MALE SEEN FROM THE LEFT SIDE. LEVATOR ANI, AND COCCYGEUS OR LEVATOR COCCYGIS MUSCLES, FORMING THE PELVIC DIAPHRAGM.

The skin surrounding the anus, and covering the coccyx and the lower part of the sacrum, has been drawn away from the tissues beneath, in order to display the radiation to the skin of fasciculi of the external or superficial sphincter of the anus (musculus sphincter ani externus). A portion of the posterior or great sacrosciatic ligament has been removed, in order to display somewhat more fully the inferior surface of the coccygeus or levator coccygis muscle.

Musculi perinei—Muscles of the perineum.

---

[1] See note [1] to p. 527.

[2] See note [2] to p. 527.

[3] *Ligamentum Apicis Coccygis.*—"From the tip of the coccyx," writes Quain ("Anatomy," 10th ed., vol. ii., part ii., p. 178), "a fibrous band passes to the integument, which is often, especially in the infant, marked by a depression (*foveola coccygea*) at this spot." This is the ligament shown in the accompanying figure, and called by Toldt the **ligament of the tip of the coccyx.*—TR.

[4] See Appendix, note 87.

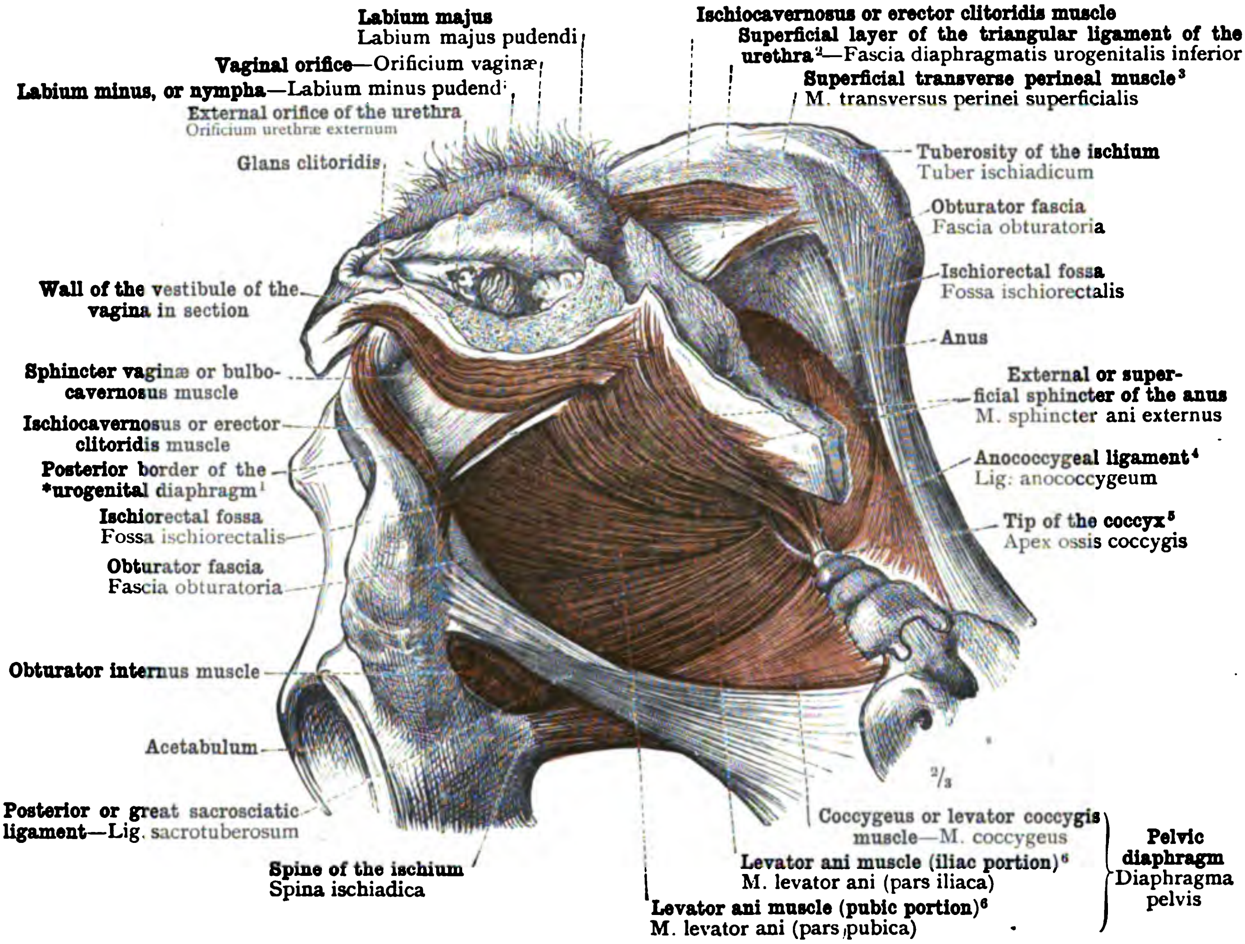

Labium majus
Labium majus pudendi
Vaginal orifice—Orificium vaginæ
Labium minus, or nympha—Labium minus pudendi
External orifice of the urethra
Orificium urethræ externum
Glans clitoridis
Wall of the vestibule of the vagina in section
Sphincter vaginæ or bulbocavernosus muscle
Ischiocavernosus or erector clitoridis muscle
Posterior border of the *urogenital diaphragm[1]
Ischiorectal fossa
Fossa ischiorectalis
Obturator fascia
Fascia obturatoria
Obturator internus muscle
Acetabulum
Posterior or great sacrosciatic ligament—Lig. sacrotuberosum
Spine of the ischium
Spina ischiadica
Ischiocavernosus or erector clitoridis muscle
Superficial layer of the triangular ligament of the urethra[2]—Fascia diaphragmatis urogenitalis inferior
Superficial transverse perineal muscle[3]
M. transversus perinei superficialis
Tuberosity of the ischium
Tuber ischiadicum
Obturator fascia
Fascia obturatoria
Ischiorectal fossa
Fossa ischiorectalis
Anus
External or superficial sphincter of the anus
M. sphincter ani externus
Anococcygeal ligament[4]
Lig. anococcygeum
Tip of the coccyx[5]
Apex ossis coccygis
2/3
Coccygeus or levator coccygis muscle—M. coccygeus
Levator ani muscle (iliac portion)[6]
M. levator ani (pars iliaca)
Levator ani muscle (pubic portion)[6]
M. levator ani (pars pubica)
Pelvic diaphragm
Diaphragma pelvis

FIG. 917.—THE MUSCLES OF THE PERINEAL REGION OF THE FEMALE SEEN FROM THE LEFT SIDE. OF THE EXTERNAL GENITAL ORGANS, THE LABIUM MAJUS AND THE LABIUM MINUS OR NYMPHA HAVE BEEN REMOVED ON THE LEFT SIDE. LEVATOR ANI AND COCCYGEUS OR LEVATOR COCCYGIS MUSCLES, FORMING THE PELVIC DIAPHRAGM.

---

[1] That is, the connected posterior borders of the superficial and deep layers of the triangular ligament of the urethra (see Appendix, note 99).—TR.

[2] Known also as the *anterior* or *inferior* layer of the triangular ligament (see Appendix, note 99).

[3] See note [1] to p. 527.

[4] See note [2] to p. 527.

[5] *Apex Ossis Coccygis.*—In the first part of this work (p. 32), I gave *extremity of the coccyx* as the English equivalent of this Latin term. The coccyx, however, has two extremities, and for this reason the expression *tip of the coccyx*, which, though somewhat colloquial, is employed by most anatomists to designate the inferior extremity of the coccyx, is to be preferred. Macalister, like Toldt, speaks of the *apex of the coccyx*, a term that would be more suitable if the coccyx were more distinctly triangular in form.—TR.

[6] *Parts of the Levator Ani Muscle.*—The levator ani muscle is divided into two parts by a cleft beginning just below the obturator canal. The anterior portion only is directly connected with the rectum; it springs from the pubis and adjoining part of the fascial origin (*i.e.*, the **tendinous arch of the levator ani muscle*—see Appendix, note 96); it is called by Toldt the *pubic portion of the levator ani muscle*, and by Savage the *pubococcygeus muscle*. The posterior portion arises from the *white line of the pelvic fascia* behind the obturator canal and from the spine of the ischium; it is called by Toldt the *iliac portion of the levator ani muscle*, by Henle the *ischiococcygeus muscle*, and by Savage the *obturatococcygeus muscle*.—TR.

Musculi perinei—Muscles of the perineum.

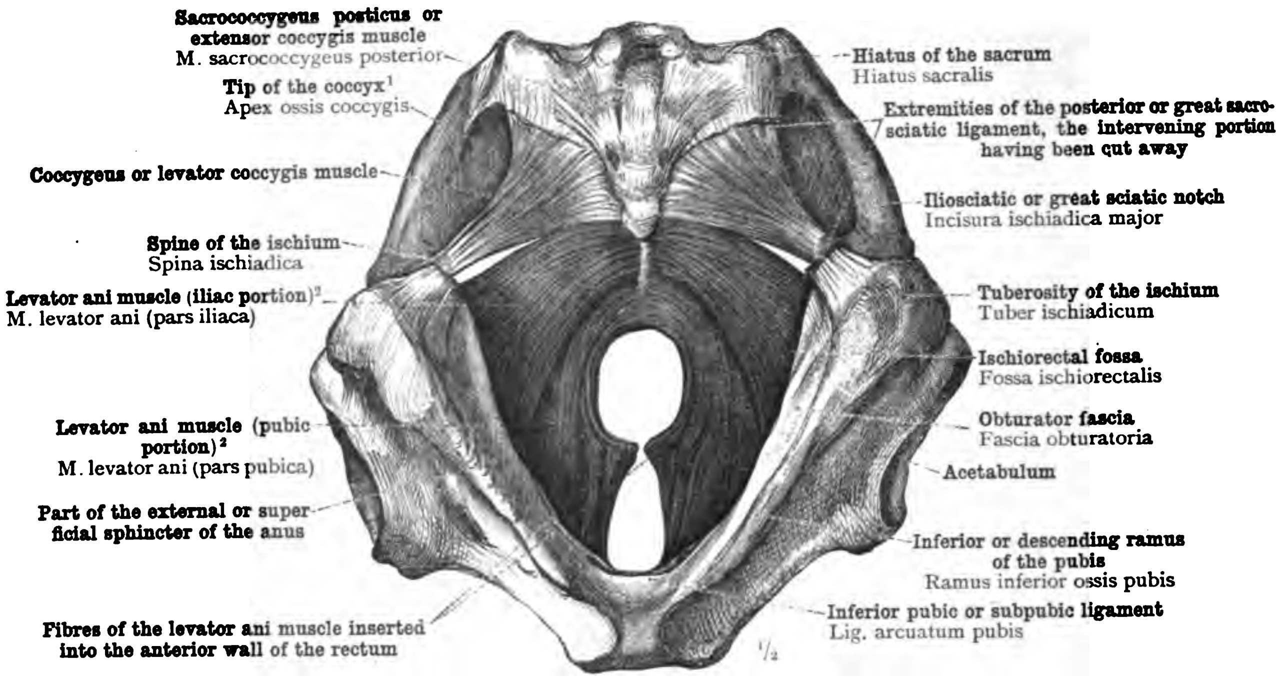

Sacrococcygeus posticus or extensor coccygis muscle
M. sacrococcygeus posterior
Tip of the coccyx[1]
Apex ossis coccygis
Coccygeus or levator coccygis muscle
Spine of the ischium
Spina ischiadica
Levator ani muscle (iliac portion)[2]
M. levator ani (pars iliaca)
Levator ani muscle (pubic portion)[2]
M. levator ani (pars pubica)
Part of the external or superficial sphincter of the anus
Fibres of the levator ani muscle inserted into the anterior wall of the rectum
Hiatus of the sacrum
Hiatus sacralis
Extremities of the **posterior or great sacrosciatic ligament,** the **intervening portion** having been **cut away**
Iliosciatic or **great sciatic notch**
Incisura ischiadica major
Tuberosity of the ischium
Tuber ischiadicum
Ischiorectal fossa
Fossa ischiorectalis
Obturator fascia
Fascia obturatoria
Acetabulum
Inferior or **descending ramus of the pubis**
Ramus inferior ossis pubis
Inferior pubic or **subpubic ligament**
Lig. arcuatum pubis
1/2

FIG. 918.—LEVATOR ANI AND COCCYGEUS OR LEVATOR COCCYGIS MUSCLES, SEEN FROM BELOW.

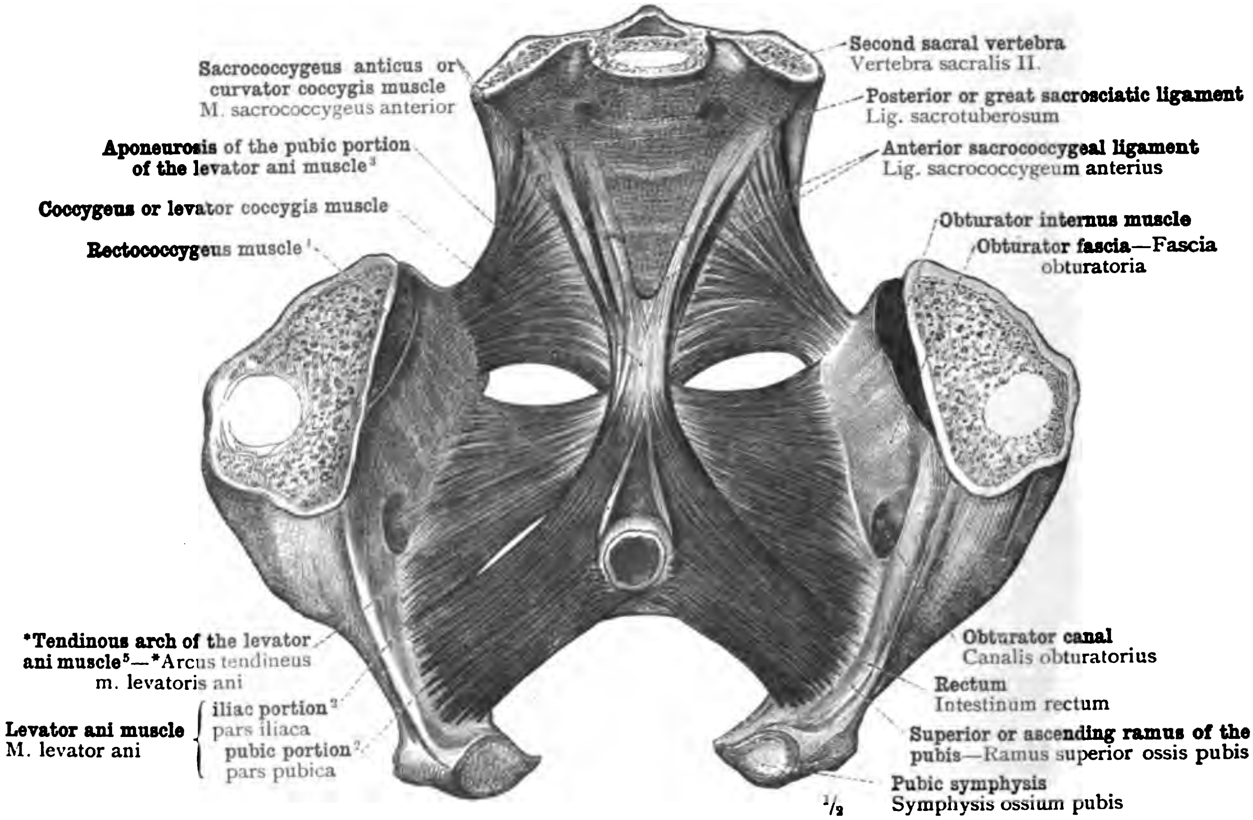

Sacrococcygeus anticus or curvator coccygis muscle
M. sacrococcygeus anterior
Aponeurosis of the pubic portion of the levator ani muscle[3]
Coccygeus or levator coccygis muscle
Rectococcygeus muscle[4]
*Tendinous arch of the levator ani muscle[5]—*Arcus tendineus m. levatoris ani
Levator ani muscle
M. levator ani
iliac portion[2]
pars iliaca
pubic portion[2]
pars pubica
Second sacral vertebra
Vertebra sacralis II.
Posterior or great **sacrosciatic ligament**
Lig. sacrotuberosum
Anterior sacrococcygeal ligament
Lig. sacrococcygeum anterius
Obturator internus muscle
Obturator fascia—Fascia obturatoria
Obturator canal
Canalis obturatorius
Rectum
Intestinum rectum
Superior or **ascending ramus of the pubis**—Ramus superior ossis pubis
Pubic symphysis
Symphysis ossium pubis
1/2

FIG. 919.—LEVATOR ANI AND COCCYGEUS OR LEVATOR COCCYGIS MUSCLES, SEEN FROM ABOVE.

After division of the pubic symphysis, the innominate bones have been drawn apart.

[1] See note [5] to p. 529.

[2] See note 6 to p. 529.

[3] Or *aponeurosis of the pubococcygeus muscle.* See note [6] to p. 529.

[4] See Appendix, note 97.

[5] See Appendix, note 98.

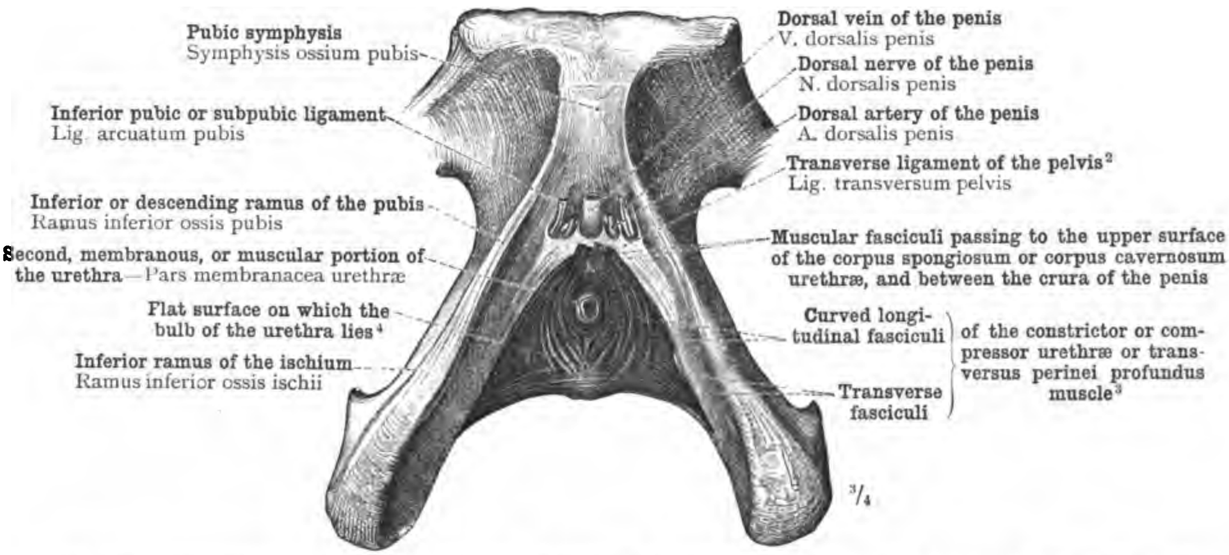

Pubic symphysis
Symphysis ossium pubis
Inferior pubic or subpubic ligament
Lig. arcuatum pubis
Inferior or descending ramus of the pubis
Ramus inferior ossis pubis
Second, membranous, or muscular portion of the urethra—Pars membranacea urethræ
Flat surface on which the bulb of the urethra lies[4]
Inferior ramus of the ischium
Ramus inferior ossis ischii
Dorsal vein of the penis
V. dorsalis penis
Dorsal nerve of the penis
N. dorsalis penis
Dorsal artery of the penis
A. dorsalis penis
Transverse ligament of the pelvis[2]
Lig. transversum pelvis
Muscular fasciculi passing to the upper surface of the corpus spongiosum or corpus cavernosum urethræ, and between the crura of the penis
Curved longitudinal fasciculi
Transverse fasciculi
of the constrictor or compressor urethræ or transversus perinei profundus muscle[3]
3/4

FIG. 920.—CONSTRICTOR OR COMPRESSOR URETHRÆ OR TRANSVERSUS PERINEI PROFUNDUS MUSCLE[3] OF THE MALE, FORMING THE MUSCULAR PART OF THE *UROGENITAL DIAPHRAGM.[1] SEEN FROM BEFORE AND BELOW.

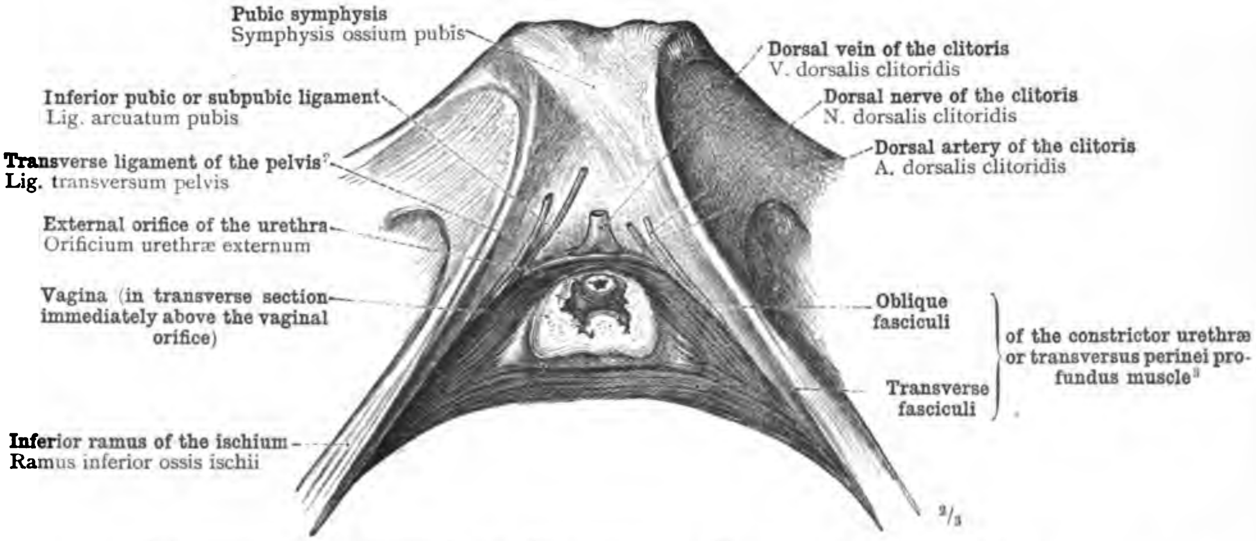

Pubic symphysis
Symphysis ossium pubis
Inferior pubic or subpubic ligament
Lig. arcuatum pubis
Transverse ligament of the pelvis[2]
Lig. transversum pelvis
External orifice of the urethra
Orificium urethræ externum
Vagina (in transverse section—immediately above the vaginal orifice)
Inferior ramus of the ischium
Ramus inferior ossis ischii
Dorsal vein of the clitoris
V. dorsalis clitoridis
Dorsal nerve of the clitoris
N. dorsalis clitoridis
Dorsal artery of the clitoris
A. dorsalis clitoridis
Oblique fasciculi
Transverse fasciculi
of the constrictor urethræ or transversus perinei profundus muscle[3]
2/3

FIG. 921.—CONSTRICTOR URETHRÆ OR TRANSVERSUS PERINEI PROFUNDUS MUSCLE[3] OF THE FEMALE, FORMING THE MUSCULAR PART OF THE *UROGENITAL DIAPHRAGM.[1] SEEN FROM BEFORE AND BELOW.

---

[1] See Appendix, note 99.

[2] See Appendix, note 100.

[3] See Appendix, note 101.

[4] The superficial layer of the triangular ligament, of course, intervening.—Tr.

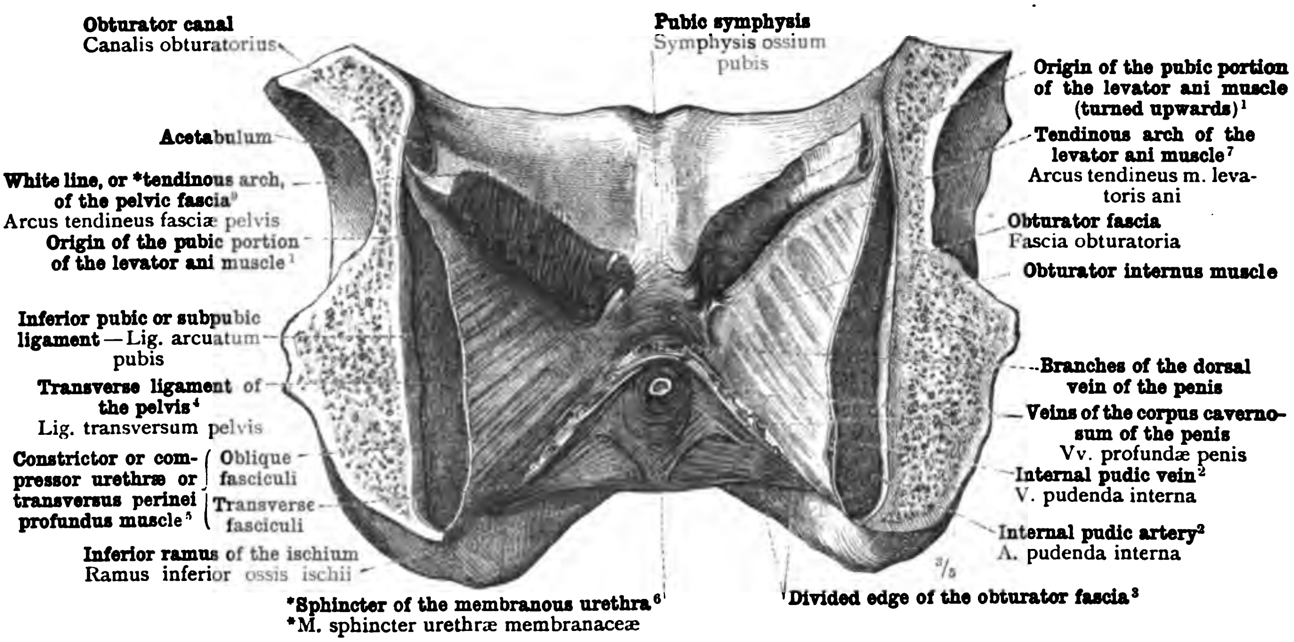

Obturator canal
Canalis obturatorius
Pubic symphysis
Symphysis ossium pubis
Origin of the pubic portion of the levator ani muscle (turned upwards)[1]
Acetabulum
Tendinous arch of the levator ani muscle[7]
Arcus tendineus m. levatoris ani
White line, or *tendinous arch, of the pelvic fascia[9]
Arcus tendineus fasciæ pelvis
Origin of the pubic portion of the levator ani muscle[1]
Obturator fascia
Fascia obturatoria
Obturator internus muscle
Inferior pubic or subpubic ligament—Lig. arcuatum pubis
Branches of the dorsal vein of the penis
Transverse ligament of the pelvis[4]
Lig. transversum pelvis
Veins of the corpus cavernosum of the penis
Vv. profundæ penis
Constrictor or compressor urethræ or transversus perinei profundus muscle[5]
Oblique fasciculi
Transverse fasciculi
Internal pudic vein[2]
V. pudenda interna
Internal pudic artery[2]
A. pudenda interna
Inferior ramus of the ischium
Ramus inferior ossis ischii
2/3
*Sphincter of the membranous urethra[6]
*M. sphincter urethræ membranaceæ
Divided edge of the obturator fascia[3]

FIG. 922.—CONSTRICTOR OR COMPRESSOR URETHRÆ OR TRANSVERSUS PERINEI PROFUNDUS MUSCLE[5] OF THE MALE, FORMING THE MUSCULAR PART OF THE *UROGENITAL DIAPHRAGM.[8] SEEN FROM BEHIND AND ABOVE. ORIGIN OF THE PUBIC PORTION OF THE LEVATOR ANI MUSCLE.[1]

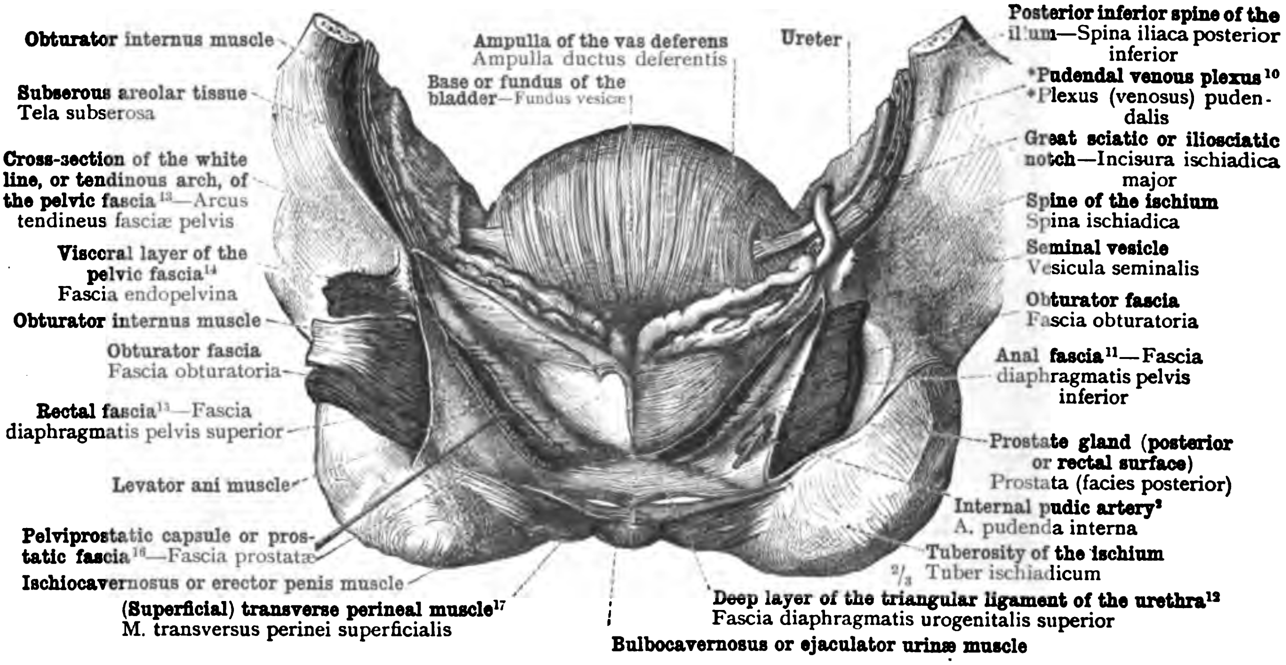
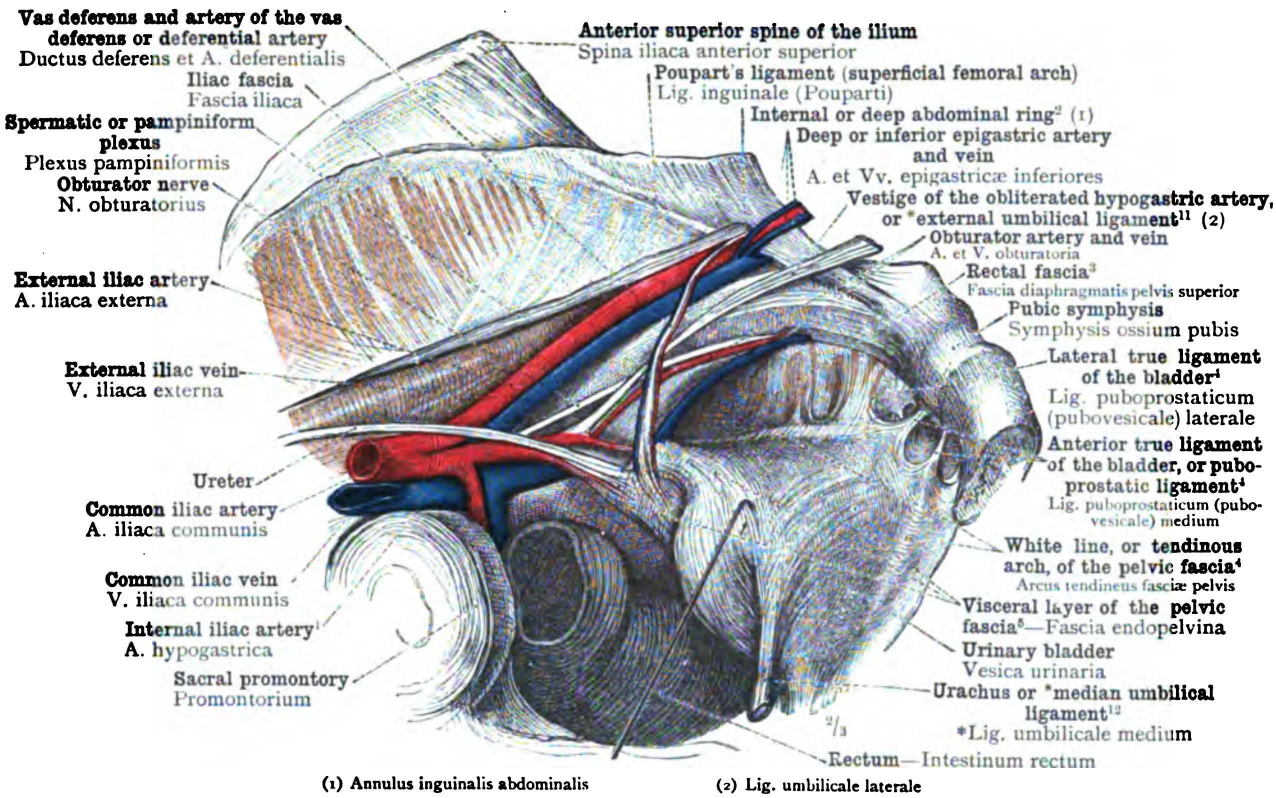

Obturator internus muscle
Ampulla of the vas deferens
Ampulla ductus deferentis
Ureter
Posterior inferior spine of the ilium—Spina iliaca posterior inferior
Base or fundus of the bladder—Fundus vesicæ
Subserous areolar tissue
Tela subserosa
*Pudendal venous plexus[10]
*Plexus (venosus) pudendalis
Great sciatic or ilioschiatic notch—Incisura ischiadica major
Cross-section of the white line, or tendinous arch, of the pelvic fascia[13]—Arcus tendineus fasciæ pelvis
Spine of the ischium
Spina ischiadica
Visceral layer of the pelvic fascia[14]
Fascia endopelvina
Seminal vesicle
Vesicula seminalis
Obturator internus muscle
Obturator fascia
Fascia obturatoria
Obturator fascia
Fascia obturatoria
Anal fascia[11]—Fascia diaphragmatis pelvis inferior
Rectal fascia[15]—Fascia diaphragmatis pelvis superior
Prostate gland (posterior or rectal surface)
Prostata (facies posterior)
Levator ani muscle
Internal pudic artery[2]
A. pudenda interna
Pelviprostatic capsule or prostatic fascia[16]—Fascia prostatæ
Tuberosity of the ischium
Tuber ischiadicum
2/3
Ischiocavernosus or erector penis muscle
Deep layer of the triangular ligament of the urethra[12]
Fascia diaphragmatis urogenitalis superior
(Superficial) transverse perineal muscle[17]
M. transversus perinei superficialis
Bulbocavernosus or ejaculator urinæ muscle

FIG. 923.—THE POSITION OF THE SEMINAL VESICLE AND OF THE AMPULLA OF THE VAS DEFERENS IN RELATION TO THE BASE OR FUNDUS OF THE BLADDER AND TO THE PROSTATE GLAND. FASCIÆ OF THE PELVIC OUTLET. SEEN FROM BEHIND.

The levator ani has been divided coronally. The pelviprostatic capsule or prostatic fascia[16] has on the right side been completely removed; on the left side, its upper part, extending over the seminal vesicle, has been detached from that organ, and turned backwards.

---

[1] See note 6 to p. 529.
[2] See Appendix, note 102.
[3] See Appendix, note 103.
[4] See Appendix, note 100.
[5] See Appendix, note 101.
[6] See Appendix, note 104.
[7] See Appendix, note 98.
[8] See Appendix, note 99.
[9] See Appendix, note 59.
[10] See Appendix, note 105.
[11] See Appendix, notes 85 and 87.
[12] See Appendix, note 99.
[13] See Appendix, note 59.
[14] See Appendix, note 106.
[15] See Appendix, notes 86 and 87.
[16] See Appendix, note 74.
[17] See note 1 to p. 527.


Vas deferens and artery of the vas deferens or deferential artery
Ductus deferens et A. deferentialis
Iliac fascia
Fascia iliaca
Spermatic or pampiniform plexus
Plexus pampiniformis
Obturator nerve
N. obturatorius
External iliac artery
A. iliaca externa
External iliac vein
V. iliaca externa
Ureter
Common iliac artery
A. iliaca communis
Common iliac vein
V. iliaca communis
Internal iliac artery[1]
A. hypogastrica
Sacral promontory
Promontorium
Anterior superior spine of the ilium
Spina iliaca anterior superior
Poupart's ligament (superficial femoral arch)
Lig. inguinale (Pouparti)
Internal or deep abdominal ring[2] (1)
Deep or inferior epigastric artery and vein
A. et Vv. epigastricæ inferiores
Vestige of the obliterated hypogastric artery, or *external umbilical ligament[11] (2)
Obturator artery and vein
A. et V. obturatoria
Rectal fascia[3]
Fascia diaphragmatis pelvis superior
Pubic symphysis
Symphysis ossium pubis
Lateral true ligament of the bladder[4]
Lig. puboprostaticum (pubovesicale) laterale
Anterior true ligament of the bladder, or puboprostatic ligament[4]
Lig. puboprostaticum (pubovesicale) medium
White line, or tendinous arch, of the pelvic fascia[4]
Arcus tendineus fasciæ pelvis
Visceral layer of the pelvic fascia[5]—Fascia endopelvina
Urinary bladder
Vesica urinaria
Urachus or *median umbilical ligament[12]
*Lig. umbilicale medium
2/3
Rectum—Intestinum rectum

(1) Annulus inguinalis abdominalis (2) Lig. umbilicale laterale

FIG. 924.—FASCIA ENDOPELVINA, THE VISCERAL LAYER OF THE PELVIC FASCIA (*see Appendix, note* 106), WITH THE ARCUS TENDINEUS FASCIÆ PELVIS, THE WHITE LINE OR TENDINOUS ARCH OF THE PELVIC FASCIA (*see Appendix, note* 59). THE POSITION OF THE VESSELS AND NERVES AT THE UPPER PART OF THE LATERAL WALL OF THE PELVIS. SEEN OBLIQUELY FROM ABOVE AND WITHIN.

The urinary bladder has been drawn away from the wall of the pelvis as far as possible in a backward and downward direction.

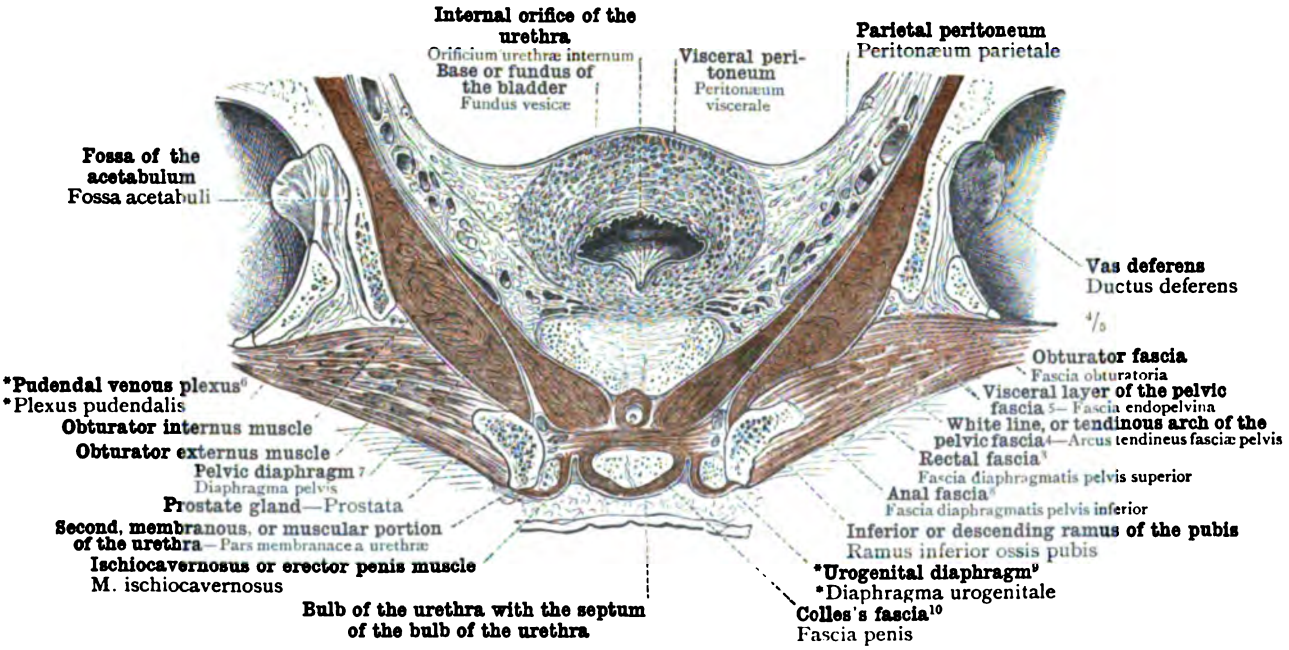

Internal orifice of the urethra
Orificium urethræ internum
Base or fundus of the bladder
Fundus vesicæ
Visceral peritoneum
Peritonæum viscerale
Parietal peritoneum
Peritonæum parietale
Fossa of the acetabulum
Fossa acetabuli
Vas deferens
Ductus deferens
4/5
Obturator fascia
Fascia obturatoria
Visceral layer of the pelvic fascia[5]—Fascia endopelvina
White line, or tendinous arch of the pelvic fascia[4]—Arcus tendineus fasciæ pelvis
Rectal fascia[3]
Fascia diaphragmatis pelvis superior
Anal fascia[6]
Fascia diaphragmatis pelvis inferior
Inferior or descending ramus of the pubis
Ramus inferior ossis pubis
***Urogenital diaphragm**[9]
*Diaphragma urogenitale
Colles's fascia[10]
Fascia penis
Bulb of the urethra with the septum of the bulb of the urethra
Ischiocavernosus or erector penis muscle
M. ischiocavernosus
Second, membranous, or muscular portion of the urethra—Pars membranacea urethræ
Prostate gland—Prostata
Pelvic diaphragm[7]
Diaphragma pelvis
Obturator externus muscle
Obturator internus muscle
***Pudendal venous plexus**[6]
*Plexus pudendalis

FIG. 925.—CORONAL SECTION THROUGH THE MALE PELVIS IN THE PLANE OF THE INTERNAL ORIFICE OF THE URETHRA. FASCIA ENDOPELVINA, THE VISCERAL LAYER OF THE PELVIC FASCIA (*see Appendix, note* 106); FASCIA DIAPHRAGMATIS PELVIS SUPERIOR, THE RECTAL FASCIA (*see Appendix, notes* 86, 87, 106); AND THE UPPER PART OF THE OBTURATOR FASCIA—AS CONSTITUENT PARTS OF THE PELVIC FASCIA. SEEN FROM BEFORE.

The urinary bladder is in a state of almost complete contraction.

[1] See Appendix, note 107.
[2] Called also the *internal inguinal aperture.*
[3] See Appendix, notes 86, 87, 106.
[4] See Appendix, note 59.
[5] See Appendix, note 106.
[6] See Appendix, note 105.
[7] See Appendix, note 87.
[8] See Appendix notes 85, 87.
[9] See Appendix, note 99.
[10] See note 2 to p. 526.
[11] See note 4 to p. 387 in Part III.
[12] See note 3 to p. 387 in Part III.

Fascia pelvis et fascia endopelvina—The pelvic fascia and its visceral layer.

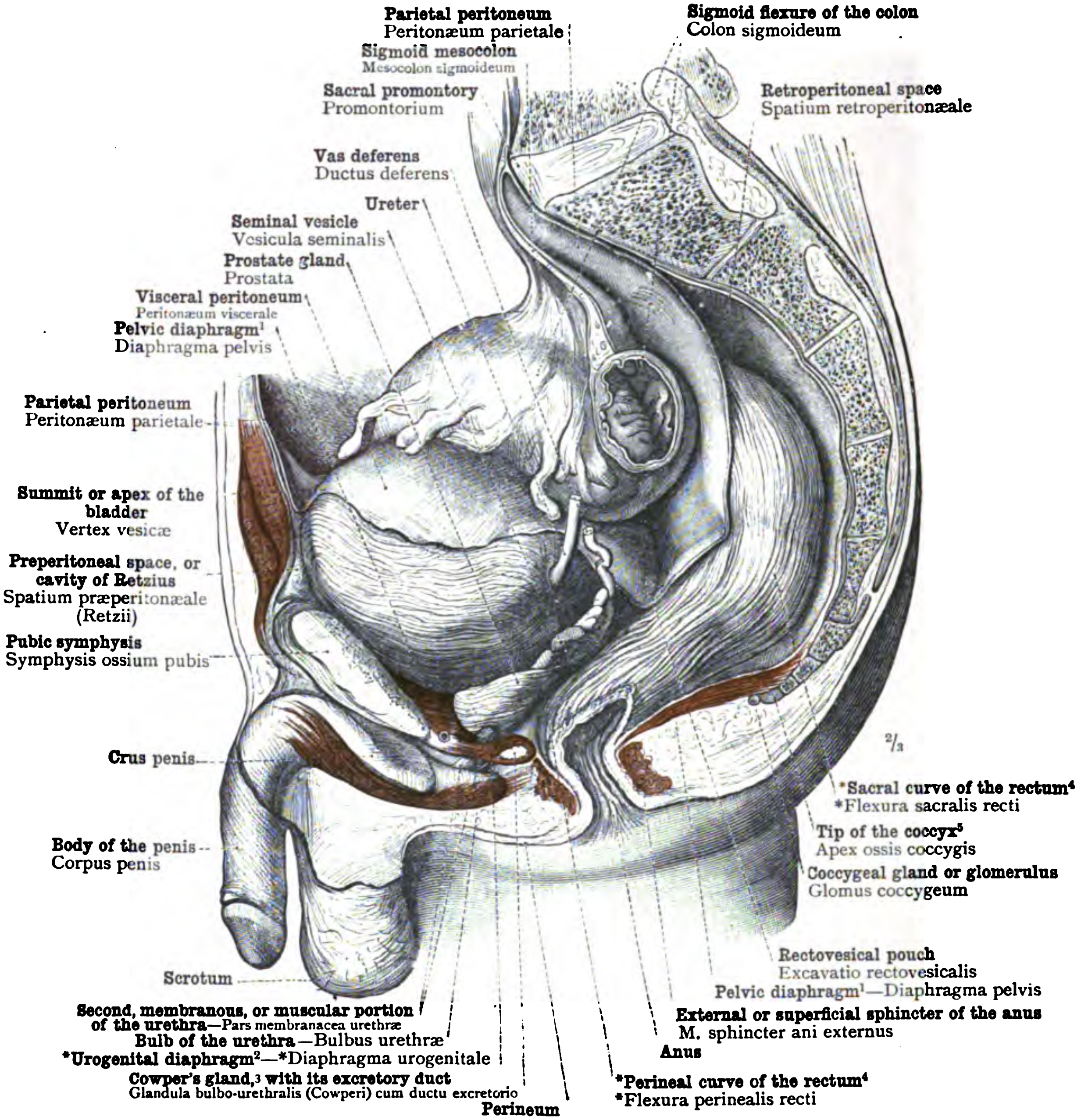

Parietal peritoneum
Peritonæum parietale
Sigmoid mesocolon
Mesocolon sigmoideum
Sacral promontory
Promontorium
Vas deferens
Ductus deferens
Ureter
Seminal vesicle
Vesicula seminalis
Prostate gland
Prostata
Visceral peritoneum
Peritonæum viscerale
Pelvic diaphragm[1]
Diaphragma pelvis
Parietal peritoneum
Peritonæum parietale
Summit or apex of the bladder
Vertex vesicæ
Preperitoneal space, or cavity of Retzius
Spatium præperitonæale (Retzii)
Pubic symphysis
Symphysis ossium pubis
Crus penis
Body of the penis
Corpus penis
Scrotum
Second, membranous, or muscular portion of the urethra—Pars membranacea urethræ
Bulb of the urethra—Bulbus urethræ
***Urogenital diaphragm**[2]—*Diaphragma urogenitale
Cowper's gland,[3] **with its excretory duct**
Glandula bulbo-urethralis (Cowperi) cum ductu excretorio
Perineum
Sigmoid flexure of the colon
Colon sigmoideum
Retroperitoneal space
Spatium retroperitonæale
2/3
***Sacral curve of the rectum**[4]
*Flexura sacralis recti
Tip of the coccyx[5]
Apex ossis coccygis
Coccygeal gland or glomerulus
Glomus coccygeum
Rectovesical pouch
Excavatio rectovesicalis
Pelvic diaphragm[1]—Diaphragma pelvis
External or superficial sphincter of the anus
M. sphincter ani externus
Anus
***Perineal curve of the rectum**[4]
*Flexura perinealis recti

FIG. 926.—POSITION OF THE PELVIC VISCERA IN THE MALE AND THEIR RELATIONS TO THE MUSCLES OF THE PELVIC OUTLET (OR PERINEAL MUSCLES), SHOWN IN THE RIGHT HALF OF THE PELVIS, SEEN FROM THE LEFT SIDE.

The urinary bladder is fully distended, the rectum nearly empty.

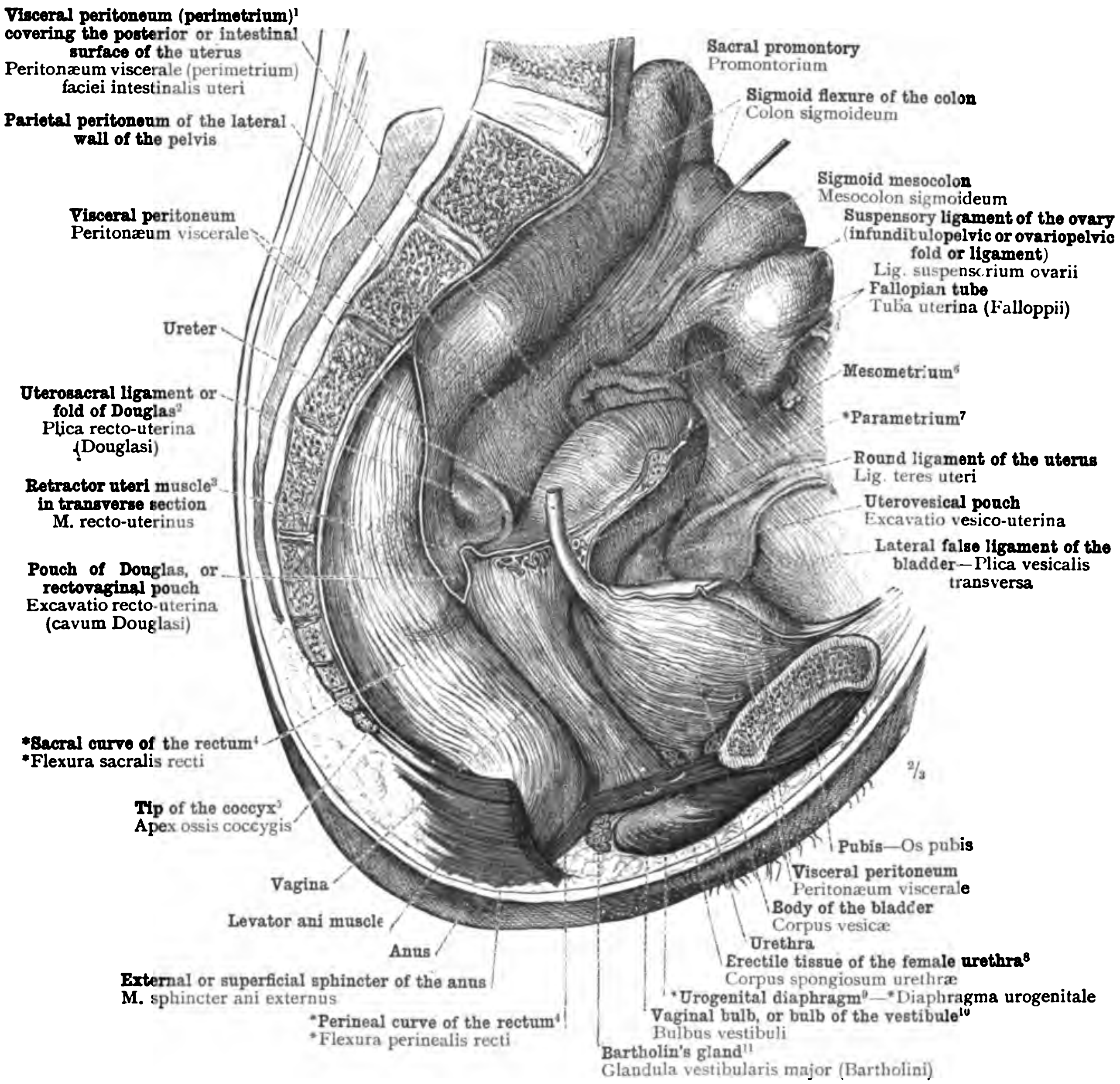
[1] See Appendix, note 87.

[2] See Appendix, note 99.

[3] Known also as the *suburethral gland.*

[4] **Curves of the Rectum.*—" The rectum follows the posterior wall of the pelvis, in a curve the concavity of which is directed forward, as far as the tip of the coccyx, and thence, still continuing the same curve, runs forwards along the upper surface of the posterior part of the pelvic diaphragm; then, bending downwards and a little backwards at an angle slightly more obtuse than a right angle, it perforates that diaphragm in a direction perpendicular to its plane to form the anal canal. In this course the rectum describes two curves: a larger, with the concavity directed forwards, *flexura sacralis*: and a smaller, with the concavity directed backwards, *flexura perinealis*" (Von Langer and Toldt's "Anatomy," 7th ed., pp. 446, 447). In choosing English equivalents for these terms (which are not to be found in the works of Quain and Macalister), I have preferred to speak of the *sacral* and *perineal curves of the rectum*, for the reason that the former, at any rate, is too prolonged and too open a bend to be appropriately termed a flexure.—TR.

[5] See note 5 to p. 529.


Visceral peritoneum (perimetrium)[1] covering the posterior or intestinal surface of the uterus
Peritonæum viscerale (perimetrium) faciei intestinalis uteri
Parietal peritoneum of the lateral wall of the pelvis
Visceral peritoneum
Peritonæum viscerale
Ureter
Uterosacral ligament or fold of Douglas[2]
Plica recto-uterina (Douglasi)
Retractor uteri muscle[3] in transverse section
M. recto-uterinus
Pouch of Douglas, or rectovaginal pouch
Excavatio recto-uterina (cavum Douglasi)
*Sacral curve of the rectum[4]
*Flexura sacralis recti
Tip of the coccyx[5]
Apex ossis coccygis
Vagina
Levator ani muscle
Anus
External or superficial sphincter of the anus
M. sphincter ani externus
*Perineal curve of the rectum[4]
*Flexura perinealis recti
Sacral promontory
Promontorium
Sigmoid flexure of the colon
Colon sigmoideum
Sigmoid mesocolon
Mesocolon sigmoideum
Suspensory ligament of the ovary (infundibulopelvic or ovariopelvic fold or ligament)
Lig. suspensorium ovarii
Fallopian tube
Tuba uterina (Falloppii)
Mesometrium[6]
*Parametrium[7]
Round ligament of the uterus
Lig. teres uteri
Uterovesical pouch
Excavatio vesico-uterina
Lateral false ligament of the bladder—Plica vesicalis transversa
2/3
Pubis—Os pubis
Visceral peritoneum
Peritonæum viscerale
Body of the bladder
Corpus vesicæ
Urethra
Erectile tissue of the female urethra[8]
Corpus spongiosum urethræ
*Urogenital diaphragm[9]—*Diaphragma urogenitale
Vaginal bulb, or bulb of the vestibule[10]
Bulbus vestibuli
Bartholin's gland[11]
Glandula vestibularis major (Bartholini)

---

[1] *Perimetrium.*—This name, for the peritoneal coat of the uterus, is rarely employed by English anatomists. Clinically, however, the derivative term *perimetritis* is in frequent use.—Tr.

[2] Known also as the *recto-uterine fold* or *ligament*. See note 3 to p. 510.

[3] Quain mentions the presence in the folds of Douglas of some non-striped muscular fibres, but leaves them unnamed. Macalister, however, calls them the *retractores uteri*.—Tr.

[4] See note 4 to p. 534.

[5] See note 5 to p. 529

[6] See Appendix, note 82.

[7] See Appendix, note 84.

[8] See Appendix, note 108.

[9] See Appendix, note 99.

[10] See Appendix, note 91.

[11] Known also as *Duverney's gland* or the *suburethral gland*. See Appendix, note 66.

FIG. 927.—POSITION OF THE PELVIC VISCERA IN THE FEMALE, AND THEIR RELATIONS TO THE MUSCLES OF THE PELVIC OUTLET (OR PERINEAL MUSCLES), SHOWN IN THE LEFT HALF OF THE PELVIS, SEEN FROM THE RIGHT SIDE. THE *PARAMETRIUM (*see Appendix, note* 84).

The urinary bladder and the rectum are nearly empty. The sigmoid flexure of the colon has been drawn up out of Douglas's pouch, and the right broad ligament of the uterus, the right Fallopian tube, the right ovary, and the right round ligament of the uterus, have been cut away together by a sagittal section passing close to the body of the uterus. The connexion of the two layers of the broad ligament of the uterus with the parietal peritoneum of the floor of the pelvis is seen, also the reflection of the visceral peritoneum covering the uterus (*perimetrium—see note* 1 *above*) on to the wall of the bladder in front and the wall of the rectum behind.

Topographical Anatomy of the Pelvic Viscera.

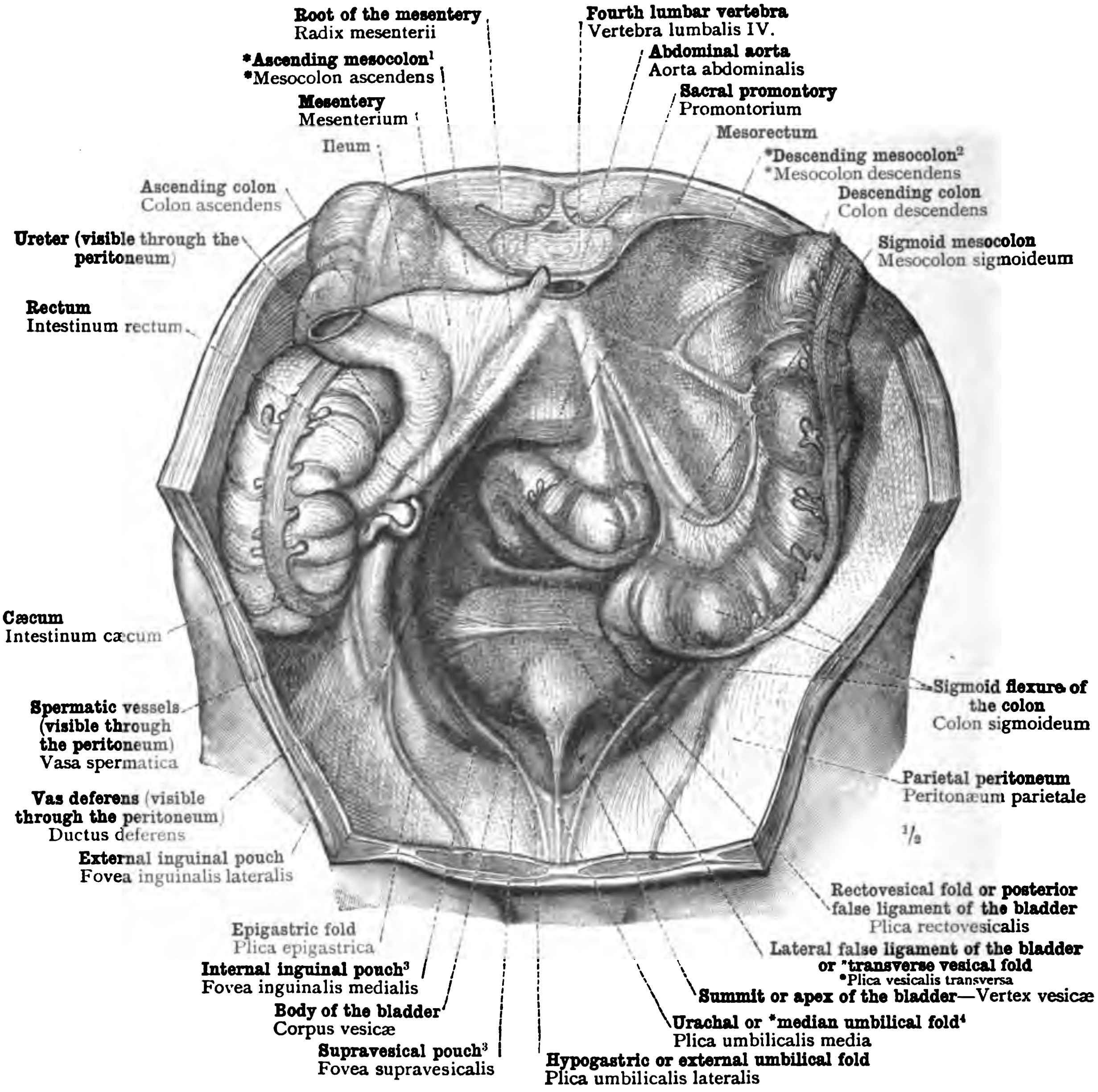


FIG. 928.—VIEW FROM ABOVE AND BEFORE OF THE PELVIC VISCERA OF THE MALE *IN SITU* AND COVERED BY THE PERITONEUM: THE BODY AND THE SUMMIT OR APEX OF THE BLADDER AND THE UPPERMOST PORTION OF THE RECTUM. THE POSITION OF THE CÆCUM AND OF THE SIGMOID FLEXURE OF THE COLON. THE RELATIONS OF THE PERITONEUM IN THE PELVIC CAVITY AND ON THE ADJOINING PORTION OF THE ANTERIOR WALL OF THE ABDOMEN: PLICA UMBILICALIS MEDIA, THE URACHAL OR *MEDIAN UMBILICAL FOLD (*see note* 4 *above*); PLICA UMBILICALIS LATERALIS, THE HYPOGASTRIC OR *EXTERNAL UMBILICAL FOLD; PLICA VESICALIS TRANSVERSA, THE LATERAL FALSE LIGAMENT OF THE BLADDER OR *TRANSVERSE VESICAL FOLD; PLICA RECTOVESICALIS, THE RECTOVESICAL FOLD OR POSTERIOR FALSE LIGAMENT OF THE BLADDER. THROUGH THE PERITONEUM, THE FOLLOWING STRUCTURES ARE VISIBLE: THE EPIGASTRIC ARTERY, THE URETER, THE VAS DEFERENS, AND THE SPERMATIC VESSELS.

Topographical Anatomy of the Pelvic Viscera.

---

[1] See Appendix, note 39.

[2] See note 1 to p. 453.

[3] By some authorities the space between the *urachal fold* and the *hypogastric fold* (called here *supravesical pouch*) is named the *internal inguinal pouch*; and the space between the *hypogastric fold* and the *epigastric fold* (called here *internal inguinal pouch*) is named the *middle inguinal pouch*. The author's nomenclature is to be preferred.—TR.

[4] Often called the *superior false ligament of the bladder*, and sometimes the *suspensory ligament of the bladder*.

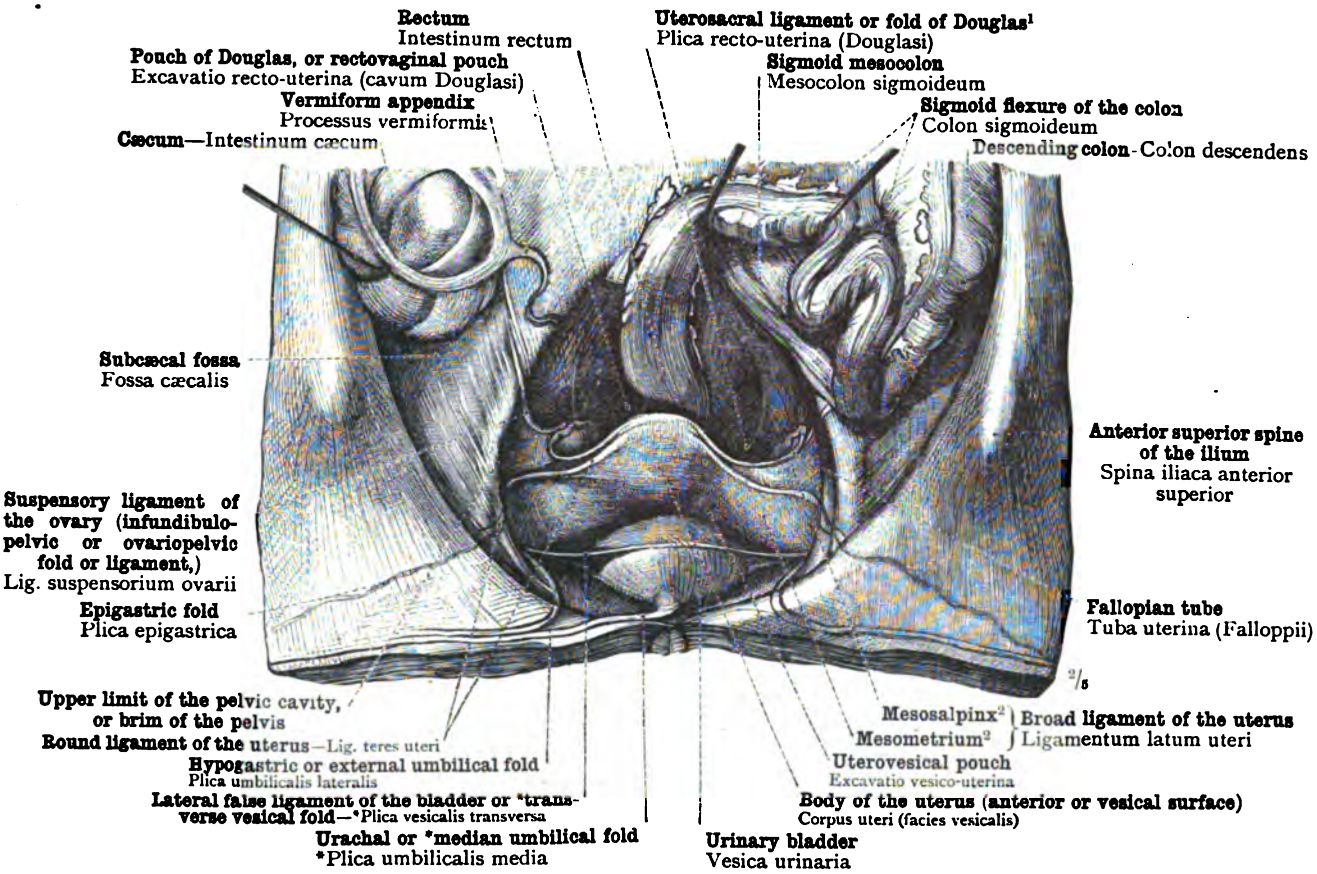

Rectum
Intestinum rectum
Pouch of Douglas, or rectovaginal pouch
Excavatio recto-uterina (cavum Douglasi)
Vermiform appendix
Processus vermiformis
Cæcum—Intestinum cæcum
Uterosacral ligament or fold of Douglas[1]
Plica recto-uterina (Douglasi)
Sigmoid mesocolon
Mesocolon sigmoideum
Sigmoid flexure of the colon
Colon sigmoideum
Descending colon-Colon descendens
Subcæcal fossa
Fossa cæcalis
Anterior superior spine of the ilium
Spina iliaca anterior superior
Suspensory ligament of the ovary (infundibulopelvic or ovariopelvic fold or ligament,)
Lig. suspensorium ovarii
Epigastric fold
Plica epigastrica
Fallopian tube
Tuba uterina (Falloppii)
2/5
Upper limit of the pelvic cavity, or brim of the pelvis
Round ligament of the uterus—Lig. teres uteri
Hypogastric or external umbilical fold
Plica umbilicalis lateralis
Lateral false ligament of the bladder or *transverse vesical fold—*Plica vesicalis transversa
Urachal or *median umbilical fold
*Plica umbilicalis media
Mesosalpinx[2]
Mesometrium[3]
Broad ligament of the uterus
Ligamentum latum uteri
Uterovesical pouch
Excavatio vesico-uterina
Body of the uterus (anterior or vesical surface)
Corpus uteri (facies vesicalis)
Urinary bladder
Vesica urinaria

FIG. 929.—PELVIC VISCERA OF A FEMALE AGED TWENTY-NINE YEARS, SEEN FROM ABOVE AND BEFORE.

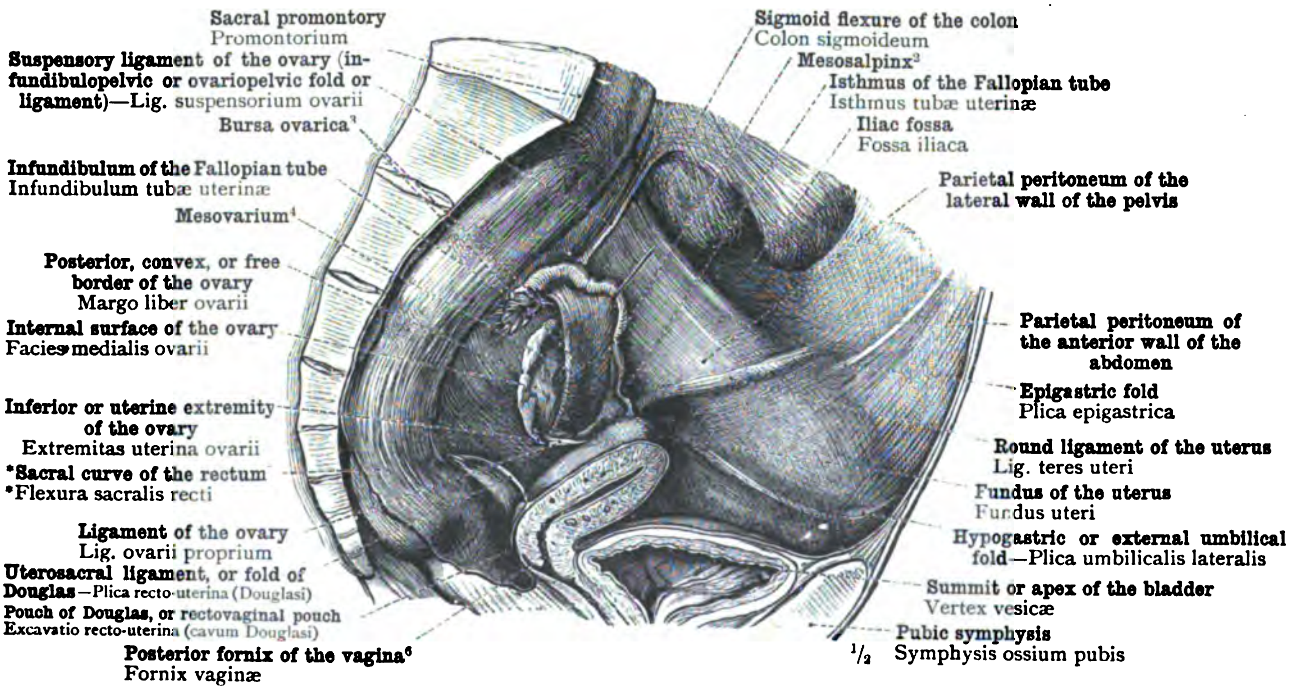

Sacral promontory
Promontorium
Suspensory ligament of the ovary (infundibulopelvic or ovariopelvic fold or ligament)—Lig. suspensorium ovarii
Bursa ovarica[3]
Infundibulum of the Fallopian tube
Infundibulum tubæ uterinæ
Mesovarium[4]
Posterior, convex, or free border of the ovary
Margo liber ovarii
Internal surface of the ovary
Facies medialis ovarii
Inferior or uterine extremity of the ovary
Extremitas uterina ovarii
*Sacral curve of the rectum
*Flexura sacralis recti
Ligament of the ovary
Lig. ovarii proprium
Uterosacral ligament, or fold of Douglas—Plica recto-uterina (Douglasi)
Pouch of Douglas, or rectovaginal pouch
Excavatio recto-uterina (cavum Douglasi)
Posterior fornix of the vagina[6]
Fornix vaginæ
Sigmoid flexure of the colon
Colon sigmoideum
Mesosalpinx[3]
Isthmus of the Fallopian tube
Isthmus tubæ uterinæ
Iliac fossa
Fossa iliaca
Parietal peritoneum of the lateral wall of the pelvis
Parietal peritoneum of the anterior wall of the abdomen
Epigastric fold
Plica epigastrica
Round ligament of the uterus
Lig. teres uteri
Fundus of the uterus
Fundus uteri
Hypogastric or external umbilical fold—Plica umbilicalis lateralis
Summit or apex of the bladder
Vertex vesicæ
Pubic symphysis
Symphysis ossium pubis
1/2

FIG. 930.—POSITION OF THE OVARY IN RELATION TO THE LATERAL WALL OF THE PELVIS.

The Fallopian tube has been drawn upwards, and the cavity of the bursa ovarica (*see Appendix, note* 79) has thus been obliterated.

---

[1] Known also as the *recto-uterine fold* or *ligament*. See note 3 to p. 510.

[2] See Appendix, note 82.

[3] See Appendix, note 81.

[4] See Appendix, note 82.

[5] See note 4 to p. 534.

[6] See Appendix, note 78.

[7] Often called the *superior false ligament of the bladder*, and sometimes the *suspensory ligament of the bladder*.

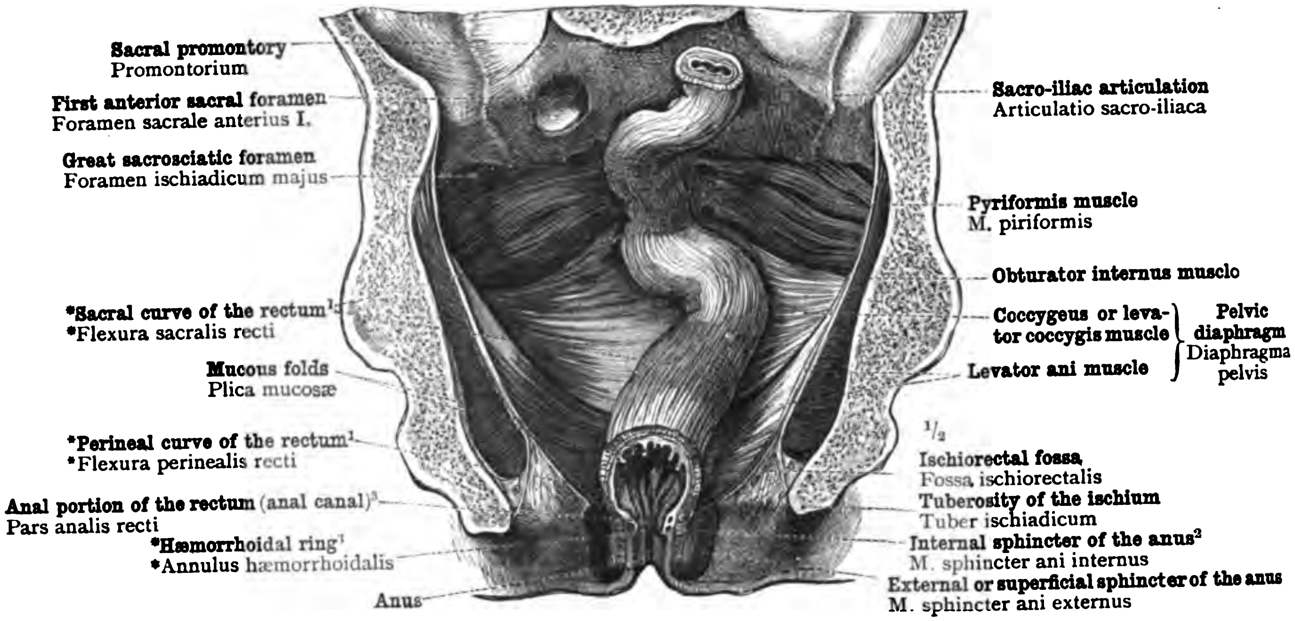

Sacral promontory
Promontorium
First anterior sacral foramen
Foramen sacrale anterius I.
Great sacrosciatic foramen
Foramen ischiadicum majus
*Sacral curve of the rectum[1]
*Flexura sacralis recti
Mucous folds
Plica mucosæ
*Perineal curve of the rectum[1]
*Flexura perinealis recti
Anal portion of the rectum (anal canal)[3]
Pars analis recti
*Hæmorrhoidal ring[1]
*Annulus hæmorrhoidalis
Anus
Sacro-iliac articulation
Articulatio sacro-iliaca
Pyriformis muscle
M. piriformis
Obturator internus musclo
Coccygeus or levator coccygis muscle
Levator ani muscle
Pelvic diaphragm
Diaphragma pelvis
1/2
Ischiorectal fossa
Fossa ischiorectalis
Tuberosity of the ischium
Tuber ischiadicum
Internal sphincter of the anus[2]
M. sphincter ani internus
External or superficial sphincter of the anus
M. sphincter ani externus

FIG. 931.—POSITION AND FORM OF THE EMPTY AND CONTRACTED RECTUM AS SEEN IN A CORONAL SECTION THROUGH THE PELVIS OF A FROZEN BODY. SEEN FROM BEFORE.

The inferior extremity of the rectum is opened by a section passing obliquely downwards and backwards. After removing the peritoneum and the great vessels, the muscles of the pelvis have been exposed.

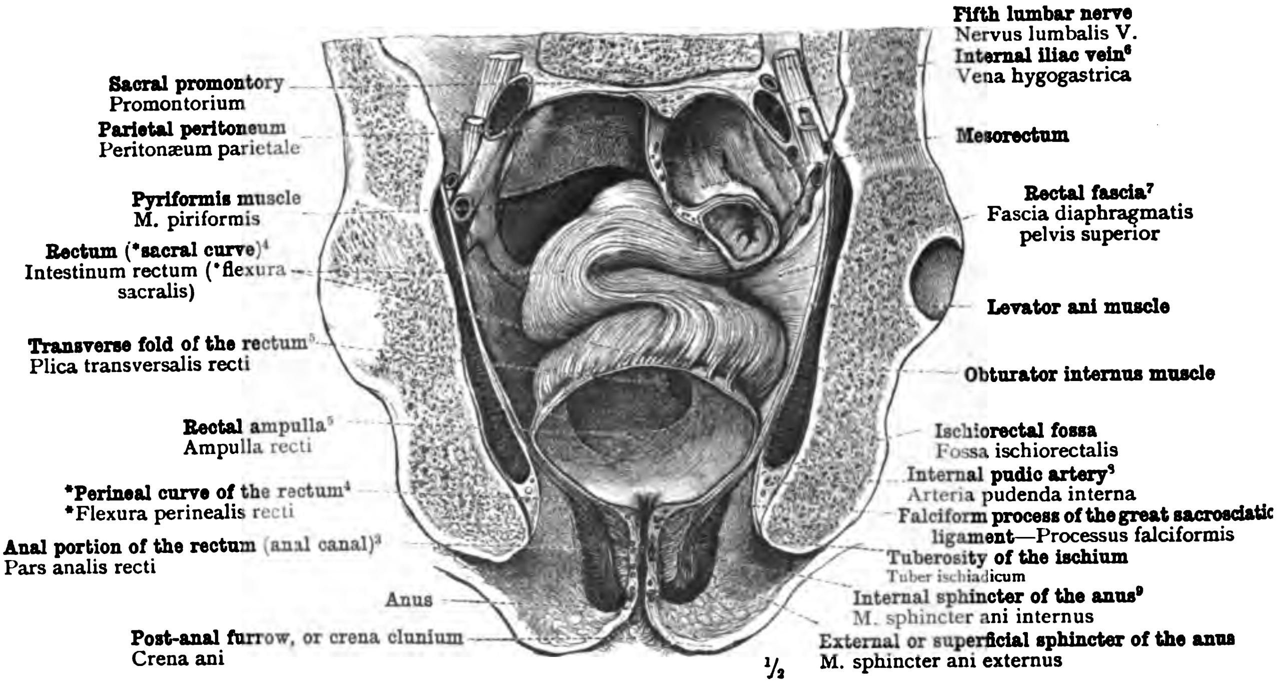

Sacral promontory
Promontorium
Parietal peritoneum
Peritonæum parietale
Pyriformis muscle
M. piriformis
Rectum (*sacral curve)[4]
Intestinum rectum (*flexura sacralis)
Transverse fold of the rectum[5]
Plica transversalis recti
Rectal ampulla[5]
Ampulla recti
*Perineal curve of the rectum[4]
*Flexura perinealis recti
Anal portion of the rectum (anal canal)[3]
Pars analis recti
Anus
Post-anal furrow, or crena clunium
Crena ani
Fifth lumbar nerve
Nervus lumbalis V.
Internal iliac vein[6]
Vena hygogastrica
Mesorectum
Rectal fascia[7]
Fascia diaphragmatis pelvis superior
Levator ani muscle
Obturator internus muscle
Ischiorectal fossa
Fossa ischiorectalis
Internal pudic artery[8]
Arteria pudenda interna
Falciform process of the great sacrosciatic ligament—Processus falciformis
Tuberosity of the ischium
Tuber ischiadicum
Internal sphincter of the anus[9]
M. sphincter ani internus
External or superficial sphincter of the anus
M. sphincter ani externus
1/2

FIG. 932.—POSITION AND FORM OF THE RECTUM WHEN GREATLY DISTENDED WITH FÆCES, AS SEEN IN A CORONAL SECTION THROUGH THE PELVIS OF A FROZEN BODY. SEEN FROM BEFORE.

In the region of the first and second sacral vertebræ, the peritoneum and the mesorectum have been left intact; in the lower part of the pelvis, the pelvic fascia is laid bare. The inferior extremity of the rectum has been opened as in the previous figure.

---

[1] See note 4 to p. 534.

[2] Known also as the *deep* or *circular sphincter of the anus.*

[3] See Appendix, note 12.

[4] See note 4 to p. 534.

[5] See Appendix, note 109.

[6] See Appendix, note 107.

[7] See Appendix, notes 86, 87, and 106.

[8] See Appendix, note 110.

[9] Known also as the *deep* or *circular sphincter of the anus.*

Form and Position of the Rectum.

APPENDIX TO PART IV.

NOTES BY TRANSLATOR

[1] *Lingual Duct* (Fig. 675, p. 420).—According to His, the foramen cæcum indicates the position of the epithelial outgrowth from which the middle portion of the thyroid body has been formed. As in course of development the thyroid body becomes more remote from the tongue, a long, slender tube, connecting it with that organ persists, the *thyroglossal duct* or *subtracheal tube*. The upper part of this tube may remain pervious as a canal leading from the foramen cæcum towards the hyoid bone. This is known as the *lingual duct*. (His, "Der Tractus Thyroglossus und seine Beziehungen zum Zungenbein," *Archiv. für Anatomie*, 1891. But see also Kanthack's views in his article on "The Thyreoglossal Duct," *Journal of Anatomy and Physiology*, 1891.)

[2] *Periglottis* (Fig. 675, p. 420).—This somewhat inappropriate name is given by Macalister to the structure shown in the figure, a tough, elastic, areolar and fatty mass, which intervenes between the front of the epiglottis and the back of the thyrohyoid membrane. It was at one time, but erroneously, called the *epiglottic gland*. The middle portion of the upper border of the periglottis is elastic, and constitutes the *hyo-epiglottic ligament*. Still higher, a median sagittally placed fold attaches it to the base of the tongue, and it is the mucous membrane covering this fold that forms the *median glosso-epiglottic fold*, or *frænum epiglottidis*. (See Fig. 673, p. 419.)

[3] *Sublingual Ducts* (Fig. 687, p. 424).—I have preferred in the text the names of *greater sublingual duct* and *lesser sublingual ducts* for the excretory ducts of the sublingual gland, for the reason that the other names used by English anatomists to denote these structures are applied in a somewhat conflicting manner. Quain terms the *lesser ducts*, six to twenty in number, the *ducts of Rivinus*. They open separately in a row along the sublingual fold; the foremost of their number, however, usually terminates in the duct of Wharton. The long slender duct (proceeding, according to Toldt, from the *anterior* lobe of the gland) which runs parallel with the duct of Wharton, called in the text *greater sublingual duct*, may join the duct of Wharton near its anterior extremity, but more commonly has an independent orifice beside that duct on the submaxillary papilla. To this duct Quain gives the name of *duct of Bartholin*. Macalister, on the other hand, calls the lesser ducts the *ducts of Walther*, and to the greater duct (which he describes as proceeding from the *posterior* lobe of the sublingual gland, and therefore nearly an inch in length) he gives the name of *duct of Rivini*. Macalister's authority notwithstanding, this duct is far more often spoken of as the *duct of Bartholin*.

[4] *Note on the Anatomy of the Lateral Wall of the Nasopharynx* (Fig. 710, p. 436).—"The pharyngeal orifice of the Eustachian tube is bounded in front by a small fold passing to the soft palate, the *salpingopalatine fold*; and below the orifice of the tube is to be seen a more or less prominent swelling over the fibres of the levator palati muscle, the so-called *levator prominence* [or *levator cushion*, according to Quain]. From the lower end of the cushion of the Eustachian orifice [which bounds that orifice above and behind] a vertical fold of mucous membrane, the *salpingopharyngeal fold*, extends downwards, and is lost below in the lateral wall of the pharynx" (Von Langer and Toldt's "Anatomy," p. 301). "The posterior extremity of the outer wall of the nasal fossæ consists of a shallow vertical furrow, the *posterior nasal sulcus*, immediately behind the posterior extremities of the middle and inferior turbinate bones. This is situated over the hinder part of the vertical plate of the palate bone and the internal pterygoid plate, and represents the *nasopharyngeal meatus* of lower mammals" (*op. cit.*, p. 297). "The part of the inferior meatus which lies behind the incisor canal, together with the space immediately behind the posterior end of the superior and middle turbinals as far back as the orifice of the Eustachian tube, belongs to the primitive buccal cavity of the fœtus, having become separated from the permanent mouth by the growth of the palate. It is known as the *nasopharyngeal part* (*ductus nasopharyngeus*), and its mucous membrane is marked off behind from that of the pharynx by a prominence which is termed the *nasopharyngeal fold*" (Quain's "Anatomy," 10th ed., vol. iii., part iii., p. 138).

[5] (Fig. 711, p. 438.) "Two lateral bands (*ligaments of Helvetius*), mostly of connective tissue, but containing a few muscular fibres belonging to the longitudinal layer, produce the sacculation of the antrum pylori" (Macalister's "Anatomy," pp. 396, 397).

[6] **Superior and *Inferior Flexure of the Duodenum* (Ibid.).—These flexures are not named by Quain or Macalister. The *superior flexure* is between the *superior* and the *descending portion* of the duodenum; and the *inferior flexure* is between the *descending* and the *transverse portion* of the duodenum. (See note [7] below.)

[7] (Ibid.) The *duodenum* was formerly described as consisting of three portions: *first*, or *superior*; *second*, or *middle*; and *third*, or *inferior*. The first two parts of the old description are now usually called *superior* and *descending* portions, respectively; while the third or inferior part of the old description has been divided into two, called respectively *transverse* and *ascending* portions.

[8] (Fig. 712, p. 438.) Though the author uses the term *valvula pylori*, there is at the pylorus no valve, properly so called, and I have therefore avoided using that term in the translation.

[9] *Diverticulum Duodenale* (*Vateri*) (Figs. 718, 719, p. 440).—This so-called diverticulum is a sac-like dilatation of the extremity of the united common bile-duct and pancreatic duct, or duct of Wirsung, as it passes obliquely through the duodenal wall. The dilatation is so frequently met with that it can hardly be regarded as pathological. The vertical fold covering the diverticulum is called by Macalister *caruncula major*, and the smaller vertical fold beneath the orifice of the diverticulum, *frænulum carunculæ*. See Macalister, *op. cit.*, pp. 402 and 412, and Quain, *op. cit.*, vol. iii., part iv., p. 142.

[10] (Fig. 719, p. 440.) The author regards the folds in the duodenal diverticulum as valvular in nature, their function being to prevent the entrance of intestinal secretions into the common bile-duct and the pancreatic duct.

[11] *Plica Transversalis Recti* (Fig. 736, p. 445).—"When the rectum is empty and contracted, it exhibits numerous folds, most of which are obliterated by distension. Several transverse or oblique folds are, however, of a more permanent character, and have been designated 'valves of the rectum' (Houston) or 'plicæ recti.' One of these, usually the largest, is situated on the right side opposite the reflection of the peritoneum from the rectum to the bladder, and was named by Kohlrausch the *plica transversalis recti*. There are generally two other folds, both on the left side, one about an inch above, the other about the same distance below, the fold on the right side. From the position and projection of these folds they may more or less impede the introduction of instruments. The dilatation of the rectum between the anal canal and the lowest of these folds is called the *rectal ampulla*" (Quain, "Anatomy," 10th ed., vol. iii., part iv., pp. 115, 116). According to Von Langer and Toldt ("Anatomy," 7th ed., pp. 337, 338), the *plica transversalis recti* is on the right and anterior walls of the rectum, about 10 centimetres (4 inches) from the anus (in Fig. 736, 2 inches only). In its substance is the thickening of the circular muscular fibres of the rectum which is known as the *sphincter ani tertius*. According to these authors, *Houston's valves* are prominent only when the rectum is greatly distended, and are obliterated when the organ is quite empty and contracted.

[12] *The Columns of the Rectum, the *Sinuses of the Rectum, and the *Hæmorrhoidal Ring* (Ibid.)—"We have to mention a further peculiarity of the lower end of the rectum, one which marks the transition from the mucous membrane to the skin. There are in this region from five to eight longitudinally disposed elevations of the mucous membrane, the *columnæ rectales* of Morgagni, which widen as they approach the anus. Here their lower ends unite to form a ringed swelling, the *annulus hæmorrhoidalis*, surrounding the gut; and the columns and the ring thus bound a number of depressions or pockets in the mucous membrane, the *sinus rectales*. This portion of the rectum, in the male about 2·6 centimetres (1 inch) in length, but somewhat shorter in the female, is known as the *pars analis recti*, or *anal canal*; while the actual external orifice is termed the *anus*" (Von Langer and Toldt, *op. cit.*, p. 338).

[13] (Fig. 737, p. 446.) Folds of peritoneum connecting a solid viscus with the abdominal wall are called *ligaments*; those passing from one viscus to another are called *omenta*; but the distinction is not always strictly maintained.

[14] * *Fibrous Appendix of the Liver* (Figs. 737, 738, p. 446).—"Attached to the free extremity of the left lobe of the liver there is often a membranous appendix, *appendix fibrosa hepatis*, of variable size, from which the parenchyma of the liver has completely disappeared, only connective tissue and *aberrant vessels* remaining. The disappearance of the parenchymatous tissue in this region can perhaps be explained in the following manner: In the embryo the umbilical veins open into the left portal vein, so that the left lobe of the liver is directly supplied with arterial blood from the placenta, and is thus placed under more favourable nutritive conditions than the right lobe; but this advantage is lost with the cessation of the placental circulation. . . . After the disappearance of the parenchyma, however, the bile-ducts, and the branches of the portal vein and hepatic artery, persist, and all of these structures are included in the term *vasa aberrantia hepatis*" (Von Langer and Toldt's "Anatomy," 7th ed., p. 349). In rare cases there may be a small *accessory liver* in the situation of the fibrous appendix, connected with the left lobe by a fold of peritoneum and a leash of vessels. (See also note [17] below.)

[15] * *Ligament of the Ductus Venosus* (Fig. 738, p. 446).—This is a fine white cord, the vestige of the obliterated ductus venosus, lying in the *fissure of the ductus venosus* (the posterior portion of the *longitudinal fissure*). It is not usually termed a *ligament* by English anatomists.

[16] *Lobes of the Liver* (Ibid.).—The author enumerates *four lobes* only: *lobus dexter*, right lobe; *lobuss inister*, left lobe; *lobus quadratus*, quadrate lobe; and *lobus caudatus* (*Spigeli*), caudate lobe (of Spigelius): the ridge connecting the *lobus dexter* with the *lobus quadratus* (*Spigeli*), between the *transverse* or *portal fissure* (below), and the lower extremity of the *fissure* or *fossa of the vena cava* (above), he calls the *processus caudatus* (see Fig. 740, p. 447). English anatomists enumerate *five lobes*: the *right*, the *left*, the *quadrate*, the *Spigelian*, and the *caudate*; the three first-named being identical with those of the author; the *Spigelian lobe* corresponding with the author's *lobus caudatus* (*Spigeli*), minus the *processus caudatus*; and this latter being the *caudate lobe* of English anatomists.

[17] *Ponticulus Hepatis* (Ibid.).—The inferior vena cava lies in a deep groove on the posterior surface of the liver, the *fissure* or *fossa of the vena cava*. Passing behind the vessel is a strand of fibrous tissue which forms a bridge connecting the right lobe with the Spigelian lobe. It is called by the author *ligamentum venæ cavæ*, but is known in England as the *ponticulus*. Like the *fibrous appendix of the liver* (see note [14] above), it is the remains of a rudimentary lobe, and contains *aberrant vessels*. Not very rarely it consists of perfectly formed hepatic tissue, so that the fissure of the vena cava is converted into a canal.

[18] (Fig. 747, p. 450.) The *gastrosplenic omentum* is connected below with the *great omentum*, and is often regarded as a part of it. With regard to the preference of the name of *omentum* for this structure over the name *ligament*, see Appendix, note [13] above.

[19] *Descriptive Anatomy of the Spleen* (Fig. 746, p. 450).—The author enumerates *three* surfaces only: *phrenic*, *renal*, and *gastric*. By some anatomists (*e.g.*, Cunningham) the blunt lower and outer end is regarded as a *fourth* surface, the *basal*. This surface lies against the tail of the pancreas, the splenic flexure of the colon, and the costocolic ligament (see note [41] below). In addition to the *anterior* and *posterior borders*, it is usual in England to speak of the ridge just internal to the hilum, which separates the gastric from the renal surface, as the *inner border*.

[20] *Duodenal Folds and Fossæ* (Fig. 757, p. 454).—Two folds of peritoneum usually pass to the left from the front of the ascending portion (fourth part) of the duodenum: one, the lower, with its free edge directed upwards, from the junction of the transverse with the ascending portion of the duodenum; the other, the higher, with its free edge directed downwards, from the duodenojejunal flexure. These are called by the author the *duodenomesocolic* and *duodenojejunal folds*, but it is perhaps better to use the names *inferior* and *superior duodenal folds*. Between these folds, to the right of the ascending portion of the duodenum, is a recess or fossa, called by the author *recessus duodenojejunalis*, the *duodenojejunal fossa*. The extension of this fossa behind the inferior fold is termed the *inferior duodenal fossa*; the extension behind the superior fold, the *superior duodenal fossa*. The folds and fossæ in this region are, however, somewhat variable in their disposition. (See Quain's "Anatomy," 10th ed., vol. iii., part iv., p. 326.)

[21] *Peritoneal Fossæ* (Ibid.).—Some authors speak of all the peritoneal *fossæ* as *pouches—e.g.*, *duodenojejunal pouch*, *subcæcal pouch*. I have not thought it necessary to indicate the alternative name in each individual instance.

[22] *Phrenohepatic Fossa* (Fig. 758, p. 454).—"The *phrenohepatic* or *diaphragmaticohepatic fossa* of the peritoneum is occasionally present on the abdominal surface of the diaphragm. It is an

elongated pouch or sinus of varying dimensions, formed by the partial adhesion of the borders of the fibrous appendix of the liver [see note [14] above] and the left lateral ligament of the liver to the peritoneal investment of the diaphragm" (Von Langer and Toldt's "Anatomy," 7th ed., p. 366).

[23] *Ileocæcal Fossæ* (Fig. 760, p. 455).—These are two in number, *superior* and *inferior*. The *superior ileocæcal fossa* (see Fig. 805, p. 475) is situated in the angle between the ileum and the commencement of the ascending colon; the *inferior ileocæcal fossa* is behind and below the junction of the ileum and the cæcum. It may extend upwards behind the ascending colon nearly as high as the right kidney and duodenum. Its mouth looks downwards and is bounded in front by the ileocæcal fold (*bloodless fold* of Treves). In Fig. 760 a sound is passed into the mouth of this fossa. By some authors the *superior ileocæcal fossa* is termed the *ileocolic fossa*, and in this case the *inferior ileocæcal fossa* is called the *ileocæcal fossa* without qualification.

[24] *Cavum Mediastinale* (Fig. 761, p. 456).—The author divides the mediastinal cavity into two portions only: *cavum mediastinale anterius* and *cavum mediastinale posterius*. English anatomists divide it into four portions: *anterior mediastinum*, *middle mediastinum*, *posterior mediastinum*, and *superior mediastinum*. The English *posterior mediastinum* is nearly identical with the author's *cavum mediastinale posterius*; while his *cavum mediastinale anterius* corresponds, with a slight variation, to the three others combined; the *superior mediastinum* being that portion of the cavity above a plane passing from the lower border of the body of the fourth dorsal vertebra to the superior sternal synchondrosis, and thus including the upper portions of both anterior and posterior divisions of the author; the *anterior mediastinum* being the portion of the cavity below the plane above mentioned and in front of the pericardium; and the *middle mediastinum* being the enlarged central portion of the cavity, containing the pericardium with its contents, the roots of the lungs, and the bronchial lymphatic glands. (See also note [2] to p. 410.)

[25] (Fig. 765, p. 458.) The *oblique line*, connecting the *superior* and *inferior* tubercles of the thyroid cartilage, is regarded by the author as a variety. Though it varies greatly in prominence, and may be very indistinct, it is seldom entirely absent. Sometimes it is represented by a fibrous band, the *oblique ligament*, stretched between the tubercles. The oblique line or ligament serves for the insertion of the sternothyroid muscle and for the origin of the sternohyoid and thyropharyngeus muscles.

[26] *Arytenoid Cartilage* (Figs. 766 to 768, p. 458).—As several of the terms descriptive of the parts of this cartilage are used neither by Quain nor by Macalister, I quote the following passage from Von Langer and Toldt's "Anatomy," 7th ed., p. 318: "The cartilage consists of an elongated plate, narrowing above to a point, the *apex*, and presenting beneath a thickened, nearly triangular *base*. The anterior border is very sharp, and exhibits just above the middle a small blunt protuberance, the **colliculus*, and at its lower extremity a forwardly directed process for the attachment of the posterior extremity of the vocal cord, hence called the *vocal process*. The concave *articular surface* of the base looks downwards, and exhibits a blunt *muscular process* directed outwards. The *inner surface* is very narrow above, and wider below, where it is continued on to the vocal process. The *outer surface* gives attachment to muscles: it presents two hollows, the upper of which, **fovea triangularis*, is a rounded triangle, embraced by a semicircular lip, the **crista arcuata*, which begins above in the colliculus; while the lower, a rounded rectangle, **fovea oblonga*, runs along the base and on to the muscular process, and is separated above from the fovea triangularis by the crista arcuata."

[27] **Corniculopharyngeal Ligament* (Fig. 771, p. 459).—This is a slender strand of fibrous tissue which passes downwards and inwards on each side from the corniculum laryngis or cartilage of Santorini to the mucous membrane of the pharynx. Below these ligaments in the median plane is the **cricopharyngeal ligament*, a flattened band with surfaces laterally directed, attached by its anterior edge to the back of the cricoid cartilage, and by its posterior edge to the mucous membrane of the pharynx. These two ligaments are described neither by Quain nor by Macalister.

[28] (Fig. 770, p. 459.) The *corniculo-arytenoid articulation* is usually, as in this instance, a syndesmosis, but is occasionally a synovial joint.

[29] (Ibid.) This foramen, when present, transmits an abnormal branch of the superior laryngeal artery.

[30] **Conus Elasticus* (Figs. 772, 773, p. 459).—As this term is not found in most English text-books of anatomy, I quote the following description from Von Langer and Toldt's "Anatomy," pp. 320, 321: "The **membrana elastica tracheæ* [the fibro-elastic membrane in which the tracheal cartilages are imbedded] passes upwards into the larynx to form the **membrana elastica laryngis*. First of all it sheathes the inner surface of the cricoid cartilage in its whole extent, but above this it becomes detached from the cartilaginous wall of the larynx, and forms on each side a flat membrane, the only attachments of which to the cartilages are in front to the angle of union of the alæ of the thyroid cartilage, and behind to the vocal processes of the arytenoid cartilage. Thus, the **elastic membrane of the larynx* exhibits two surfaces, converging from each side of the upper border of the cricoid cartilage upwards towards the median plane, and at the level of the vocal processes terminating in two parallel free borders. This arrangement of the elastic membrane is known as the **conus elasticus*, and the somewhat thickened free borders are called **ligamenta vocalia* [the inferior thyro-arytenoid ligaments or ligaments of the true vocal cords]. At this level the **elastic membrane of the larynx* terminates, being replaced above by a thin layer of areolar tissue. That portion of the **elastic cone* which connects the upper border of the front of the cricoid cartilage with the lower border of the front of the thyroid cartilage is seen from the front as a triangular membrane filling in the gap between the two cartilages, and is called the *middle cricothyroid ligament* [middle portion of the cricothyroid membrane]." This description appears alike more intelligible and more accurate than that given in most English text-books, which is to the effect that the vocal cord may be regarded as the upper free edge of the cricothyroid membrane.

[31] *Mucous Glands of the Larynx* (Figs. 775, 777, p. 460).—The names used by Toldt—*anterior*, *middle*, and *posterior laryngeal glands*—are not commonly employed by English anatomists. The *anterior* glands, situate on the back of the epiglottis, I have called the *post-epiglottic glands*. The *middle* glands, most numerous above, where they form a prominence beneath the mucous membrane of the aryteno-epiglottic fold immediately behind the cartilage of Wrisberg, and a chain running thence downwards and forwards along the false vocal cord, may be best distinguished as the *glands of the aryteno-epiglottic fold*. The *posterior* glands form a mass behind the arytenoid cartilage and beneath the cartilage of Santorini, and may be called *post-arytenoid glands*. All these must be carefully distinguished from the so-called *epiglottic gland* between the anterior surface of the epiglottis, the hyoid bone, and the root of the tongue, which is not a gland at all, but a mass

of yellow fat and fibrous tissue. (See *periglottis* in Fig. 675, p. 420, and note [2] above.)

[32] *Labium Vocale* (Fig. 779, p. 461).—The true vocal cords, writes Quain ("Anatomy," 10th ed., vol. iii., part iv., p. 155), "are situated at the inner and free edge of a mass of tissue triangular on coronal section [see Fig. 780]. One surface of this mass looks upwards, and forms the floor of the ventricle; another looks downwards and inwards, and bounds the lower division of the laryngeal cavity; while the third is external." This triangular mass constitutes the author's *labium vocale*, or, as it may be called, the **lip of the glottis*, but the term is not current in England.

[33] *Macula Flava, the Cartilage of Luschka* (Fig. 781, p. 461). —"In the anterior part of the vocal cord, near its attachment to the thyroid cartilage, there is a circumscribed mass of dense elastic tissue containing numerous cells. This is visible through the intact mucous membrane as a *yellow spot* (*macula flava*), of about the size of a poppy-seed" (Von Langer and Toldt's "Anatomy," 7th ed., p. 323). "A small nodule of elastic cartilage (*cartilage of Luschka*) is found in the anterior and inferior part of the vocal cord" (Quain's "Anatomy," 10th ed., vol. iii., part iii., p. 155).

[34] *Tunica Adventitia Pharyngis* (Fig. 791, p. 466).—"The outermost layer of the wall of the pharynx consists of a thin stratum of connective tissue, the *tunica adventitia pharyngis*, which forms a fascial covering for the constrictor muscles of the pharynx, and may be regarded as a continuation of the bucco-pharyngeal fascia. It is of importance for the reason that the primary ramification of the vessels and nerves of the pharynx takes place in its substance. In the middle line behind it is connected with the *raphe of the pharynx*, and above with the *fascia pharyngobasilaris* [the *pharyngeal aponeurosis* of English authors; see pp. 432, 433, and 436] . . . which (with the mucous membrane) alone forms the uppermost portion of the posterior and lateral walls of the pharynx, the muscular coat being here deficient, as the superior constrictor of the pharynx does not extend up to the base of the skull" (Von Langer and Toldt, *op. cit.*, p. 305). The outer fibrous coat of the pharynx thus separates the constrictor muscles from the prevertebral fascia. On either side it is attached to the sheath of the great vessels of the neck. It is most strongly developed behind and (above) at the sides, and this portion is called by Macalister the *post-pharyngeal fascia*, which name I have given in the text as an alternative, the name *adventitious coat of the pharynx* not being used by English anatomists.

[35] *Broncho-œsophageus and Pleuro-œsophageus Muscles* (Fig. 799, p. 470).—"The longitudinal fibres of the œsophagus are sometimes joined by a broad band of smooth muscle, passing from the left pleura, and sometimes also by another from the left bronchus. According to Cunningham, the former is almost constantly present, and the latter very frequently" (Quain's "Anatomy," 10th ed., vol. iii., part iv., p. 66.

[36] *Supplemental Pleural Spaces* (Ibid.).—The use of the term *sinus* for those regions of the pleural cavity in which two portions of parietal pleura are in apposition appears inappropriate. Quain suggests the preferable name of *supplemental* or *complemental pleural space*. There are three such regions in which the pleural cavity is unoccupied by lung: the *phrenocostal* (shown in Fig. 799), between the chest wall and the diaphragm, below the inferior border of the lung; the *pericardiosternal* or *costomediastinal* (shown in Figs. 800 and 801, p. 471), between the anterior surface of the pericardium and the posterior surface of the sternum and costal cartilages, internal to the anterior border of the lung, and more extensive on the left side than on the right; and the *mediastinodiaphragmatic* (Macalister) or *pericardiophrenic*, between the lower margin of the pericardium and the diaphragm.

[37] (Ibid.) The *crura* or *pillars* of the diaphragm described by English anatomists are two only in number—a longer *right* crus and a shorter *left* crus. Each of these is composed of all the fibres passing from the right and left sides, respectively, of the bodies of the lumbar vertebræ and the intervertebral discs to the central tendon. Thus, the *crus* of English authors corresponds to the combined *inner* crus and *intermediate* crus of Toldt; while the *outer* crus of the latter is in England not considered to belong to the crural portions of the diaphragm.

[38] *Bulb of the Aorta* (Fig. 800, p. 471).—This name is often given to the somewhat enlarged portion of the *ascending aorta* immediately above the aortic valve, which contains the three *sinuses of Valsalva.*

[39] *Ascending Mesocolon* (Fig. 805, p. 475).—Fig. 756, on p. 453, shows an abnormal condition of the large intestine in which the posterior layer of the ascending mesocolon has failed to become adherent to the parietal peritoneum, and the ascending colon, like the transverse colon, is freely movable. Normally, however, as shown in Fig. 805, this adhesion takes place, and a strip of the posterior surface of the ascending colon is connected by areolar tissue with the fascia covering the quadratus lumborum muscle, and with the front of the right kidney. To call the adherent layer of peritoneum internal to the ascending colon by the name of *ascending mesocolon* is contrary to English usage. (See also note [1] to p. 453.)

[40] **Gastrocolic Ligament* (Fig. 806, p. 476).—This name is given by the author to that part of the *great* or *gastrocolic omentum* which connects the great curvature of the stomach with the transverse colon.

[41] *Saccus Lienalis* (Fig. 807, p. 477).—A fold of peritoneum, the *costocolic* or *phrenocolic ligament*, or *pleurocolic fold*, attached externally to the diaphragm opposite the tenth and eleventh ribs, passes horizontally inwards to the splenic flexure of the colon. It has a lunated free border directed forwards. It forms the lower boundary of a hollow containing the spleen; the basal surface of this organ (see note [19] above) resting upon the ligament as on a shelf (see also Fig. 813, p. 483). Hence this ligament, though not attached to the spleen, is sometimes called *sustentaculum lienis*, while the hollow above is called by the author *saccus lienalis—the splenic pouch*. This must be carefully distinguished from the **splenic fossa of the omental sac*. See Fig. 809, p. 479, and note [44] below.

[42] *Parts of the Small Omentum* (Ibid.).—The *small omentum* consists of the following portions, enumerated in their position from left to right: (1) a *thick* portion (*pars condensa omenti minoris*), passing to the cardia; (2) a *thin* portion (*pars flaccida omenti minoris*), passing to the lesser curvature—these form the gastrohepatic omentum proper; (3) a thicker portion again, passing from the transverse or portal fissure of the liver to the pylorus and the first part of the duodenum, with a free border directed to the right, forming the anterior boundary of the foramen of Winslow, and containing between its layers the hepatic artery, portal vein, common bile-duct, and nerves and lymphatics of the liver (this portion of the small omentum is called by the author the *hepatoduodenal ligament*, but the term is not used by English anatomists). In the specimen shown in Fig. 807 the small omentum extends abnormally far to the left, to form a *hepatocolic ligament* or *omentum*.

[43] *Superior Mediastinum* (Fig. 809, p. 479).—The lower margin of the cut surface of the aorta in this figure is at the

level of the plane separating the *superior mediastinum* of English authors from the three lower divisions of the mediastinal cavity. See note [2] to p. 410 and note [24] above.

[41] *Divisions of the Omental Sac* (Ibid.).—"The omental sac is attached to the posterior abdominal wall in the median line in front of the aorta by the root of the mesogastrium. Here also is the boundary of the principal part of the cavity and the orifice giving access from the right to its interior. The boundary is constituted by a fold of peritoneum, the *pancreaticogastric fold*, which extends from the superior border of the pancreas vertically upwards along the line of attachment of the mesogastrium to the cardia of the stomach; between the layers of this fold the coronary artery runs from the cœliac axis to the small curvature of the stomach. The pancreaticogastric fold forms the boundary between the principal part of the omental sac and the cavity situated behind the small omentum, and known as the *vestibule of the omental sac*. Regarding that portion of the omental sac which lies behind the stomach as the principal or middle portion of the cavity, we can distinguish three supplementary compartments: the largest of these extends downwards below the stomach between the two layers of the great omentum, and is called *recessus inferior omentalis*, the *inferior fossa of the omental sac;* the second lies behind the gastrosplenic omentum, and is bounded on the left by the hilum of the spleen—this is known as *recessus lienalis*, the *splenic fossa of the omental sac;* the third, finally, stretches upwards, close to the abdominal portion of the œsophagus, and is termed *recessus superior omentalis*, the *superior fossa of the omental sac*" (Von Langer and Toldt's "Anatomy," p. 357). I have given this long extract because the omental sac is not adequately described in Quain's "Anatomy." Macalister, who treats the subject more fully and accurately, describes the omental pouch [sac] as "hour-glass-shaped," and terms the opening between the two sections, bounded behind by the pancreaticogastric fold, the *mesomental opening*. The part of the sac to the right of this opening, and between it and the foramen of Winslow, he calls the *lesser omental sac*, which comprises the combined superior fossa and vestibule of the omental sac of Toldt. The *splenic fossa of the omental sac* is to be carefully distinguished from the *splenic pouch* of the greater peritoneal cavity, the two being separated by the gastrosplenic omentum. See Fig. 807, p. 477, and note [41] above.

[45] (Ibid.) The *gastrosplenic omentum* is connected below with the great omentum, and is often regarded as a part of it. The name "omentum" is to be preferred to "ligament" for this structure (see note [13] above).

[46] (Fig. 816, p. 486.) The *sternal line* is a vertical line traced on the front of the trunk passing over the sternoclavicular articulation.

[47] (Ibid.) The *parasternal line* is a vertical line traced on the front of the trunk midway between the sternal line and the mamillary line.

[48] (Ibid.) The *mamillary line* is a vertical line traced on the front of the trunk passing through the centre of the nipple or mamilla. "When the mammæ are pendulous, the mamillary line may be taken as corresponding to the perpendicular dropped from the middle of the clavicle" (Macalister).

[49] (Fig. 818, p. 488.) The *axillary line* is a vertical line traced on the side of the trunk passing through the anterior fold of the axilla (Macalister), or through the summit of the axillary fossa (Toldt). It will be seen that the axillary line as defined by Macalister is a little behind the axillary line as defined by Toldt. The latter line is, of course, the one shown in the figure.

[50] *Calices and Infundibula* (Figs. 823 to 825, p. 491).—Quain writes: "The pelvis, within the sinus, divides usually into three, but sometimes only two, primary tubular divisions, and these at length end in a larger number of short, truncated, but comparatively wide branches named *calices* or *infundibula*, which receive the papillæ into their wide mouths. . . . A single calix often surrounds two, sometimes even three, papillæ, which are in that case united together; hence the calices are in general not so numerous as the papillæ" ("Anatomy," 10th ed., vol. iii., part iv., p. 193). The author, it will be noticed, calls the primary divisions of the pelvis *calyces majores;* the secondary and terminal divisions, *calyces minores*. Macalister, whose usage I have followed, discriminates between infundibula and calices, applying the former name to the primary, the latter to the secondary divisions of the pelvis. Toldt and Macalister alike state that there is a calix for each papilla; but Quain's description is the more accurate. The calices usually number from eight to twelve, the papillæ from twelve to twenty.

[51] *Area Cribrosa* (Fig. 827, p. 492).—"At the summit of each pyramid the *ductus papillares*—the *uriniferous* or *excretory tubules*, or *ducts of Bellini*—five to fifteen in number, open by as many separate orifices. The area of the papilla containing these orifices (*foramina papillaria*), which are almost distinguishable by the naked eye, is known as the *area cribrosa*" (Von Langer and Toldt's "Anatomy," 10th ed., p. 370). A number of the orifices are often aggregated at the bottom of a slight depression near the summit of the papilla. This depression, when present, is termed the *foveola*.

[52] (Fig. 831, p. 492.) Quain's nomenclature of the surfaces of the suprarenal capsules differs somewhat from that of Toldt. According to the former authority, the *posterior surface* of the *left capsule* "is divided into two parts by a prominent vertical ridge, the area mesial to the ridge looking inwards and backwards and resting upon the left crus of the diaphragm, and the lateral area outwards as well as backwards against the kidney" ("Anatomy," 10th ed., vol. iii., part iv., p. 303). The *mesial* of these two areas is the *facies posterior* of Toldt; the *lateral* is named by him *basis glandulæ suprarenalis*. Similarly in the case of the *right capsule*, the *posterior surface*, according to Quain, consists of two areas: one, the upper and larger, in contact with the diaphragm, being identical with the *facies posterior* of Toldt; the other, lower and smaller, in contact with the kidney, called by Toldt the *basis*. This aspect of the right capsule is, however, not shown in the Atlas.

[53] (Fig. 835, p. 493.) The portion of the uriniferous tubule between the peripheral extremity of Henle's looped tubule and the commencement of the collecting tubule, called in Germany the *Schaltstück* (intermediate portion), "because it is, in a sense, intermediate between the secretory and the excretory portion of the tubule" (Toldt), comprehends the *irregular or zigzag tubule*, the *second convoluted tubule*, and the *junctional tubule*, of English authors.

[54] (Ibid.) This comprises the *descending tubule of Henle*, the *loop of Henle*, and the *ascending tubule of Henle*, of English authors.

[55] (Ibid.) The term *straight tubule*, as used by the author, includes all the tubules forming part of the pyramids and the medullary rays, whether these are *descending* and *ascending tubules of Henle*, *collecting tubules*, or *ducts of Bellini*.

[56] *Blood-Supply of the Medulla of the Kidney* (Ibid.).—It will be noticed that I have written "*pseudarteriæ rectæ, or vasa recta spuria*" as the counterpart in the English nomenclature of the author's "*arteriolæ rectæ*." There is, in fact, a conflict of opinion regarding the blood-supply of the medulla of the kidney. In Von Langer and Toldt's "Anatomy," 7th ed., p. 373, we find the following views expressed: "An important problem, with regard to the blood-supply of the kidney, is whether all the blood

circulating in that organ, the medulla as well as the cortex, must necessarily pass through the glomeruli; for if this be so, the nutrition of the medulla is dependent on the vessels of the cortex. It is an established fact that the efferent vessels of the large glomeruli adjacent to the medulla break up into leashes of straight vessels, *arteriolæ rectæ*, which are continued into the capillary plexus of the pyramids of Malpighi. The question arises, whether, in addition to these vessels proceeding from the glomeruli, other arterioles, directly derived from the arterial arches, supply this capillary plexus. We may answer with considerable confidence that, even if such a direct arterial blood-supply to the pyramids exists, the blood thus conveyed would be insufficient in quantity, and that the nutrition of the pyramids is, in any case, dependent to a notable extent upon the blood-vessels of the cortex." Quain, on the other hand, writes ("Anatomy," 10th ed., vol. iii., part iv., p. 202): "The efferent vessels from the lowermost glomeruli break up wholly into pencils of straight vessels (*pseudarteriæ rectæ*) which pass directly into the boundary layer of the medulla, and there supply the continuation downwards of the medullary rays into the pyramid. . . . With the exception of the blood brought by the false arteriæ rectæ, the blood-supply of the medulla is to a great extent independent of that of the cortex, although, of course, the capillary network is continuous throughout. The pyramids are chiefly provided with blood by branches which come off directly from the concave side of the arterial arches, and passing down into the boundary layer of the medulla there divide to form bunches or pencils of parallel or slightly diverging minute vessels (*arteriæ rectæ*), which, by alternating with the bundles of uriniferous tubules which are passing up to the cortex to form the medullary rays, produce the characteristic streaked appearance of this part of the pyramid." To sum up: In Toldt's view the blood-supply of the medulla is principally dependent on that of the cortex, and the existence of a direct blood-supply to the medulla must even be regarded as doubtful; whereas according to Quain, though the existence of a cortical element in the blood-supply of the medulla (by means of the false arteriæ rectæ) is admitted to be "an established fact," the direct element in the blood-supply of the medulla (by means of the true arteriæ rectæ) must be regarded as having considerably greater importance. Other English authorities—Foster, Halliburton, and Macalister—are in agreement on this question with the views of Schäfer and Symington as set forth in Quain's "Anatomy." Foster, indeed, lays especial stress, from the physiological point of view, on the fact that "the blood-supply of the pyramids, consisting chiefly of conducting tubules, is to a very large extent distinct from that of the cortex, where the tubules are chiefly secreting tubules" ("Physiology," 5th ed., p. 665). Macalister calls the *true* arteriæ rectæ *recurrent straight branches*, or *vasa recta vera*; and the *false* arteriæ rectæ *vasa recta spuria*.

[57] (Fig. 836, p. 494.) "The *iliacosubfascial fossa* is a roomy recess or pouch of the peritoneum met with as a very rare variety in the inner part of the iliac fossa. When present, it is formed in the following manner: The tendon of the psoas parvus muscle, as it passes to its insertion into the iliac fascia covering the iliopectineal line and eminence, separates a little from the iliacus muscle, forming a hollow, which extends for a certain distance inwards behind the psoas magnus muscle. The parietal peritoneum, as it coats the interior of this hollow, necessarily forms a peritoneal recess or pouch, and this recess, if, as usually when present, it is on the left side, is occupied by the lowermost portion of the descending colon" (Von Langer and Toldt's "Anatomy," 7th ed., p. 366).

[58] *Cervix or Neck of the Bladder* (Fig. 839, p. 496).—This name is given by English anatomists to that portion of the bladder immediately in front of the base, at the junction of the organ with the urethra. The term is not used by Toldt. Other terms employed by English anatomists and not by the author, in describing the bladder, are given in note [61] below.

[59] **Tendinous Arch of the Pelvic Fascia* (Figs. 840, 841, p. 497).—"The origin of the *visceral layer of the pelvic fascia* and of the *rectal* and *anal fasciæ* (see note [106] below) from the parietal layer of the pelvic fascia or obturator fascia takes place along a tendinous band that runs across the lateral wall of the pelvis, the *arcus tendineus fasciæ pelvis*. This is seen as soon as the parietal peritoneum and the delicate subserous areolar tissue have been removed. It begins in front behind the pubic symphysis, at the level of the inferior pubic or subpubic ligament, runs backwards, crossing the upper part of the levator ani muscle about an inch below the obturator canal, towards the spine of the ischium, and can be traced yet further backwards, though thinner and less defined, on the surface of the coccygeus muscle, and as far as the fourth sacral vertebra. The foremost portion of this tendinous arch, which has a well-defined edge, is called *ligamentum puboprostaticum* (*pubovesicale*) *medium*—the anterior true ligament of the bladder, or puboprostatic ligament; this ligament, with its fellow, bounds a deep hollow behind the symphysis, *fovea pubovesicalis*—the *pubovesical fossa—at the bottom of which the dorsal vein of the penis is seen entering the pelvis and dividing into two lateral branches. . . . Flattened bands of fibrous tissue, reinforcing the pelvic fascia, and radiating from the tendinous arch upwards near the entrance of the obturator canal (often, however, but slightly developed), receive the name of *ligamentum puboprostaticum* (*pubovesicale*) *laterale*—the lateral true ligament of the bladder" (see Fig. 924, p. 533).—Von Langer and Toldt's "Anatomy," 7th ed., pp. 444, 445. This passage shows that Toldt's *arcus tendineus fasciæ pelvis* corresponds with the *white line of the pelvic fascia* of English authors; but also that the former term is used in a more comprehensive sense than the latter.

[60] *Pubovesical Muscle* (Fig. 840, p. 497).—See Quain's "Anatomy," 10th ed., vol. iii., part iv., p. 213, and Macalister's "Anatomy," p. 447. By the latter authority these unstriated muscular fibres connecting the anterior wall of the bladder with the back of the pubis and with the prostate gland (in the male) are called *pubo-prostaticovesical fibres*.

[61] *Boundaries of the Trigone of the Bladder* (Figs. 842, 843, p. 498).—The base or posterior boundary of the trigone is formed by a curved elevation of varying prominence connecting the summits of the ureteric orifices, and known as *Mercier's bar*; it corresponds in position with a muscular band which joins these orifices to one another and to the neck of the bladder. At its outer extremities Mercier's bar is continuous with the *ureteric folds*, above and outside the ureteric orifices; these folds are supposed to act as valves preventing the regurgitation of urine into the urethra. The ureteric folds are continued downwards by the lateral boundaries of the trigone, two faint ridges which converge to the lower extremity of the uvula of the bladder and the back of the urethral orifice. These ridges correspond, like Mercier's bar, to muscular bands, which in this case, however, belong to the internal layer of longitudinal fibres, and they are known as *Bell's muscles*. Behind Mercier's bar there is often, especially in old age, a depressed area, the *post-trigonal pouch*.

[62] **Urethral Ring* (Fig. 842, p. 498).—"The internal orifice of the urethra, *orificium urethræ internum*, is seen, in the contracted bladder, to be surrounded by a circular elevation of the mucous

membrane, ***annulus urethralis***, dependent on the great development in this region of the circular layer of the muscular coat. When the bladder is greatly distended, the urethral ring is hardly discernible" (Von Langer and Toldt's "Anatomy," 7th ed., p. 376). This is the *sphincter vesicæ* (*internus*) of some authors. Griffiths states there is no thickening of the circular fibres in this situation sufficient to justify the use of the term sphincter ("Observations on the Urinary Bladder and Urethra," *Journal of Anatomy and Physiology*, 1891). These fibres at the *base* of the prostate are called by Macalister *sphincter vesicæ internus* to distinguish them from an envelope of striated muscle fibres surrounding the urethra at the *apex* of the prostate, and called by Macalister *sphincter vesicæ externus*.

[63] (Ibid.) Toldt distinguishes the *colliculus seminalis* as the middle thickened section of the *crest of the urethra*, in which the prostatic utricle opens. In England, however, the names *colliculus seminalis*, *verumontanum*, and *caput gallinaginis*, are commonly employed as alternative names for the whole length of the *crest of the urethra*.

[64] (Ibid.) Known also as the *prostatic sinus*, *prostatic vesicle*, *sinus pocularis*, and *uterus masculinus*.

[65] **Crest of the Female Urethra* (Fig. 843, p. 498).—"The mucous membrane of the female urethra exhibits in the median line of the posterior wall a longitudinal prominence, *crista urethralis*, which can be traced from the internal to the external orifice" (Von Langer and Toldt's "Anatomy," 7th ed., p. 409). This is the most prominent of several longitudinal folds in the female urethra. It is mentioned by Quain and Macalister, but not named.

[66] (Fig. 845, p. 500.) Known also as *Duverney's gland*, or the *suburethral gland*. The latter name, though suitably applied to Cowper's gland, is given to Bartholin's gland only on the ground of its homology with Cowper's gland.

[67] *Os Uteri Externum* (Ibid.).—This is commonly spoken of by clinicians as the *os uteri*, without qualification, though the word ***externum*** is properly added to distinguish it from the *os uteri internum*. The external os was in former times called the *os tincæ*, from its supposed resemblance to the mouth of a tench.

[68] *Fascial Coverings of the Testicle and Spermatic Cord* (Figs. 846, 847, p. 501).—The names given to these are various and conflicting. According to the best-established nomenclature of English anatomists, the covering derived from the intercolumnar fibres of the external oblique muscle of the abdomen is called the *intercolumnar* or *spermatic fascia*. Next within this comes the cremaster muscle and the aponeurotic layer connecting its fibres, to which, considered as a whole, Quain gives the name of *cremasteric fascia*. Thirdly, within this, we come to the covering derived from the transversalis fascia, and generally known in England as the *infundibuliform fascia*. But the divergencies from the nomenclature just given are manifold. Taking Toldt first, we find he gives the name of *fascia cremasterica* (*Cooperi*) to the *intercolumnar* or *spermatic fascia* of English anatomists; and the name of ***tunica vaginalis communis testis et funiculi spermati*** to the infundibuliform fascia of English anatomists. (In England the use of the term *tunica vaginalis* is entirely restricted to the serous sac of the testicle) Macalister further complicates the use of the term *cremasteric* by describing as the ***tunica cremasterica***, *all three* of the fascial layers enumerated at the beginning of this note, "which are so closely united as to be with difficulty separable from each other." It will be noted that Toldt appends the name of Astley Cooper to the layer he terms "cremasteric," but this is a further divergence from English usage. By the term *fascia propria of Astley Cooper* we denote, in England, the penultimate covering of an oblique inguinal hernia, that next to the peritoneum, which consists of the combined infundibuliform fascia and the subserous areolar tissue between that fascia and the peritoneum. As a final alternative in the nomenclature of the fascial layers in this region, I give that of Young (U.S.), who enumerates the coverings of the cord as consisting of (1) ***external spermatic*** or *intercolumnar fascia*, (2) ***cremaster muscle***, and (3) ***internal spermatic fascia*** or *fascia propria*. From this medley, the student will do well to select and impress on his memory the distinctive names of *intercolumnar fascia*, *cremasteric fascia*, and *infundibuliform fascia*.

[69] *Hydatids of Morgagni* (Fig. 848, p 502).—"On the upper extremity of the testis and beneath the head or globus major of the epididymis is situated a hemispherical body of varying size, consisting of delicate and very vascular connective tissue, and often containing the remnant of a duct. This is known as the *sessile hydatid of Morgagni*, or *appendix testis* (*Morgagnii*), and is the rudiment of the cephalic extremity of the fœtal Müllerian duct. Similar but smaller stalked bodies are frequently met with on the head or globus major of the epididymis, and are termed *pedunculated hydatids*, *appendices epididymidis*" (Von Langer and Toldt's "Anatomy," pp. 383, 384). The terms *sessile* and *pedunculated hydatid* are employed by Macalister, but not by Quain; the latter authority uses *appendix of the testicle* as an alternative name for the (*sessile*) *hydatid of Morgagni*. Some authorities call it *corpus Morgagni*. For the development of these structures from Müller's duct, see Figs. 896, 897, p. 520.

[70] **Ligaments of the Epididymis* (Fig. 849, p. 502). — The epididymis is attached to the posterior border of the testicle (1) by the efferent ducts passing from the gland to the head or globus major of the epididymis; (2) by a duplicature of the tunica vaginalis containing numerous bloodvessels passing between the testicle and the posterior border of the epididymis; (3) within the digital fossa (sinus epididymidis) are two strands of fibrous tissue covered by reflections of the tunica vaginalis connecting the upper and lower ends respectively of the body of the epididymis with the testicle. It is these last that are called by the author ***superior** and **inferior ligaments of the epididymis***. The names are not used by Quain or Macalister.

[71] *Vas Aberrans* (Fig. 851, p. 502).—"The so-called ***ductulus aberrans*** is a tube with a blind termination, which opens by its proximal extremity into the canal of the epididymis near the tail of that organ. Coiled tightly, it forms a small lobe not attached to the testicle proper; but occasionally also it is seen as a straight tube of varying length. It is a glandular canal, and represents that part of the Wolffian body which was not used up in the formation of the head or globus major of the epididymis. A similar canal, ***ductulus aberrans superior***, is sometimes met with attached to the head or globus major of the epididymis. This, however, is attached to the testicle, and is merely an efferent duct which has become strictured off from the canal of the epididymis, and has thus lost its connexion with the head of that organ" (Von Langer and Toldt's "Anatomy," 7th ed., p. 383).

[72] *Lobes or Lobules of the Epididymis* (Fig. 854, p. 503).—Toldt by this term denotes the coils of the various efferent ducts of the testicle. These, however, form the ***coni vasculosi*** of English anatomists, who use the term ***lobes of the epididymis*** to denote the larger masses of the coiled ***canal of the epididymis***, these lobes or masses being separated by incomplete tranverse fibrous partitions.

[73] *Middle Lobe or Isthmus of the Prostate Gland* (Fig. 858, p. 504).—This is that portion of the prostate gland lying between the

ejaculatory ducts and the neck of the bladder; its forward projection lies beneath the uvula of the bladder. The term *isthmus*, though not commonly employed in England, is preferable to *middle lobe*, for it is only in pathological senile enlargement of the prostate that the organ becomes distinctly trilobate. The middle lobe of the prostate gland is sometimes also known as *Home's lobe*.

[74] (Fig. 861, p. 505.) The outer fibrous coat of the prostate gland is derived in part from the visceral layer of the pelvic fascia and the deep layer of the triangular ligament of the urethra, and in part from a dense but thin fibrous layer peculiar to the prostate beneath the outer fascial investment. To the compound fibrous coat thus formed Macalister gives the name of *pelviprostatic capsule*, expressing its joint origin. The *prostatic plexus of veins* ramifies between the two layers of this capsule; and immediately beneath the inner layer is the external layer of unstriated muscular fibres to which Toldt gives the name of *musculus prostaticus*.

[75] *Divisions of the Cervix* (Fig. 873, p. 511).—Most authorities are in agreement with the author in his division of the cervix uteri into two parts only—*vaginal* and *supravaginal*. Schroeder, however, speaks of three portions—*infravaginal*, *intermediate*, and *supravaginal*. (See Hart and Barbour's "Gynecology," 3rd ed., pp. 16, 17.)

[76] (Figs. 873, 874, p. 511.) The *mesovarium*, or *mesentery of the ovary*, is the bilaminar fold of peritoneum by which the ovary is attached to the broad ligament of the uterus. (See also note [82] below.)

[77] *Position of the Ovary* (Fig. 873, p. 511).—Owing to the manner in which the broad ligament has been drawn out to its full length, the ovary has been pulled into a horizontal position, differing from that it normally occupies in the body, in which, according to some authorities, its long axis is oblique, according to others, vertical. Hence *in situ* the *tubal* extremity becomes *superior*; the uterine extremity, *inferior*; and the surfaces, here represented as directed upwards and downwards, become *external* and *internal*.

[78] *Vaginal Fornix* (Figs. 873, 874, p. 511). This is the upper portion of the vagina, surrounding the vaginal portion of the cervix. Most English anatomists, however, speak, not of the vaginal fornix as a whole, but of its four parts: *anterior fornix*, *posterior fornix*, and *right* and *left lateral fornices*.

[79] *Bursa Ovarica* (Fig. 874, p. 511).—This term is not used by Quain. Macalister describes it as a pouch at the back of the broad ligament of the uterus in which the ovary lies, between the *ovario-pelvic ligament* (*ligamentum suspensorium ovarii*, according to Toldt's nomenclature—see also note [8], p. 511) and the rest of the broad ligament. The *ovarian bursa* must be distinguished from the *ovarian fossa* or *fovea* (*fossa ovarii*, Quain), which is a recess in the parietal peritoneum on the lateral wall of the pelvis, corresponding to the external surface of the ovary, and situated between the external and internal iliac arteries in front of the sacro-iliac articulation; the ovarian fossa is often bounded behind and below by the ureter.

[80] (Fig. 875, p. 512.) Owing to the irregular, torn appearance of the *fimbriated extremity* of the Fallopian tube, surrounding the abdominal orifice, this orifice was by ancient anatomists named *morsus diaboli*.

[81] (Ibid.) English anatomists usually speak of separate *uterine* and *vaginal* venous plexuses. These, of course, communicate somewhat freely; but on the whole the venous blood from the body of the uterus passes by means of the uterine plexus to the ovarian or pampiniform plexus and the inferior vena cava, that from the neck of the uterus and the vagina by means of the vaginal plexus to the internal iliac vein.

[82] *Mesometrium, Mesovarium, and Mesosalpinx* (Figs. 875, 876, p. 512).—As these terms are not employed by all English authorities, I append a description from Von Langer and Toldt's "Anatomy," 7th ed., p. 401: "That portion of the broad ligament of the uterus which passes to the lateral wall of the pelvis, there to become continuous with the parietal layer of the peritoneum, conveys the vessels and nerves and the round ligament to the uterus, and is therefore called the *mesentery of the uterus* or *mesometrium*; that part of the broad ligament which lies between the ligament of the ovary and the Fallopian tube, sometimes rising above the plain of the pelvic inlet, and terminating laterally in a free border (the *infundibulo-ovarian border*) is the *mesentery of the Fallopian tube*, or *mesosalpinx*; and from this there branches off backwards the short *mesentery of the ovary*, or *mesovarium*." (See Fig. 876.)

[83] **Corpus Albicans* (Fig. 876, p. 512).—This name is given to the white, stellate mass of scar tissue into which the *corpus luteum* is ultimately transformed.

[84] *Parametrium* (Fig. 881, p. 513).—This name was first given by Virchow (*Archives*, No. xxiii.) to that part of the subserous connective tissue of the pelvis, abundantly supplied with blood-vessels and lymphatics, that lies beside the cervix and the upper part of the vagina, and between the layers of the broad ligament of the uterus at its lower and inner part. The term *parametrium* is rather a clinical than an anatomical one, and since, as Spiegelberg points out ("Midwifery," Eng. ed., vol. i., p. 43), the name conveys the idea of a definite organ, whilst there is no line of demarcation between the parametric and the paravaginal, paravesical, and pararectal tissue, the name *parametric connective tissue* is to be preferred.

[85] (Ibid.) The *anal fascia* is continued in front into what is called (in the male) the *deep* or *superior layer* of the *triangular ligament of the urethra*, and by Macalister called the *subpubic fascia*. The name *anal fascia* is limited to that part which forms the inner wall of the ischiorectal fossa.

[86] *Rectal Fascia* (Ibid.).—This appears to be the most suitable English equivalent for the author's *fascia diaphragmatis pelvis superior*, the fascia covering the upper surface of the levator ani muscle.

[87] *Pelvic Diaphragm* (Ibid.).—In this the author includes, in addition to the *coccygeus* or *levator coccygis* and *levator ani* muscles, the *superior* and *inferior fasciæ of the pelvic diaphragm*—*i.e.*, the *rectal* and *anal fasciæ* of English anatomists. (See also notes [85] and [86].)

[88] (Fig. 883, p. 514.) *Skene's tubules* (*ductus para-urethrales*) are two canals running parallel with the female urethra on either side, beneath the mucous membrane and embedded in the muscular coat. They open either just within or just without the urethral orifice (within, probably, in the virgin, and without, in the multipara, in whom slight eversion of the urethral orifice is almost constant). Their diameter is about 1 millimetre (1/25 inch), and their length from 1½ to 3 centimetres (½ inch to 1¼ inches), but they never extend beyond the internal orifice of the urethra. Though not distinctly glandular in character, they are often called *Skene's glands*. They were first described by Skene in the *American Journal of Obstetrics* for April, 1880. A third tubule, *Schüller's tubule*, is occasionally present in the middle line behind, midway between Skene's tubules.

[89] *Vestibule* (Ibid.).—Toldt includes in this the space at the sides of the vaginal orifice within the edges of the labia minora, as well as the space in front of that orifice. As defined by English anatomists, however, the *vestibule* is the triangular space of which

the clitoris forms the apex, the labia minora the sides, and a transverse line through the front of the vaginal orifice the base.

[90] *Fossa Navicularis* (Ibid.).—Macalister stands alone in applying this term to the space *behind* the fourchette, between that fold and the posterior commissure of the vulva. By all other authorities the fossa navicularis is defined as the space in *front* of the fourchette, between it and the posterior margin of the vaginal orifice.

[91] *Bulbus Vestibuli* (Figs. 884, 885, p. 515).—Though this mass of erectile tissue is commonly known in England as the *bulb of the vestibule*, the use of this term is altogether inconsistent, since it is only the partially detached anterior portion (*pars intermedia* of Kobelt) that lies in the region of the vestibule as defined by English anatomists (see note [89] above). Hence the alternative name of *vaginal bulb* is to be preferred.

[92] (Fig. 884, p. 515.) This *venous plexus* is the lower part of the vaginal plexus, which communicates freely behind with the lower part of the hæmorrhoidal plexus.

[93] *Marginal Lip of the Cloaca* (Fig. 895, p. 520).—The name of *cutaneous fold* or *greater cutaneous fold* is sometimes given to this structure, which forms the scrotum in the male and the labia majora in the female. To avoid confusion, however, it is better to speak of it as the *marginal lip*, and to reserve the name *fold* for the *genital folds* (see Figs. 908-911, p. 524), which develop on each side within the marginal lip, and form in the male (by their fusion in the median line) the floor of the penile urethra, in the female the labia minora or nymphæ.

[94] *Cloaca* (Ibid.).—We must distinguish between the *cloaca*, which is the cavity formed by the united distal extremities of the alimentary and urogenital canals, and the *cloacal orifice*, by which the cloaca opens externally.

[95] *Ligaments of the Wolffian Body* (Figs. 898 and 899, p. 521).—A strand of fibrous tissue mixed with involuntary muscular fibres is attached to each end of the Wolffian body, the upper passing to the diaphragm, the lower to the groin. These are called *superior* and *inferior*, or *diaphragmatic* and *inguinal ligaments of the Wolffian body;* the inferior or inguinal ligament in England is, however, usually known as the *plica gubernatrix*. As the Wolffian body becomes atrophied, the superior or diaphragmatic ligament disappears; but concurrently with the development of the genital or reproductive gland, in the female into the ovary, in the male into the testis, the plica gubernatrix becomes in the former the *round ligament of the uterus*, in the latter the *gubernaculum testis*.

[96] *Genital Cord* (Fig. 899, p. 521).—Behind the stalk of the allantois (subsequently the base of the bladder) the Wolffian ducts are closely approximated to one another before opening into the urogenital sinus (the ventral segment of the cloaca). Between and somewhat behind them lie the uniting lower extremities of the Müllerian ducts. The ducts are all embedded in a mass of connective tissue, and to the whole structure thus formed is given the name of *genital cord*.

[97] (Fig. 919, p. 530.) The *rectococcygeus muscles* are bands of unstriated but reddish muscular tissue which passes backwards on each side of the rectum. Both Quain and Macalister describe these bands as attached behind to the front of the second and third pieces of the coccyx; but as Toldt points out, and Fig. 919 shows, the actual muscular tissue does not extend so far back as this, and the attachment to the coccyx is through the intermediation of the aponeurosis of the pubic part of the levator ani muscle.

[98] **Tendinous Arch of the Levator Ani Muscle* (Ibid.).—"The levator ani muscle arises for the most part from a tendinous arch in the obturator fascia, *arcus tendineus musculi levatoris ani*, which can be traced from the ischial spine to near the obturator canal" (Von Langer and Toldt's "Anatomy," 7th ed., p. 438).

[99] *Diaphragma Urogenitale* (Figs. 920 and 921, p. 531).—The author's application of the term *pelvic diaphragm* has been explained in note [87] above. In that structure there are two apertures—a circular one in the centre for the rectum, and a triangular one anteriorly for the urogenital canal (see Fig. 918, p. 530). The triangular space between the inferior or descending rami of the pubes is, however, too large to be completely filled in by the urogenital canal, and it is occupied by a musculofibrous plate bearing the same relation to that canal that the pelvic diaphragm bears to the rectum, and called by the author the *urogenital diaphragm*. The muscular portion of this diaphragm is by the author named *musculus transversus perinei profundus*, and in England *constrictor* or *compressor urethræ*. Its superficial and deep surfaces are covered by fascial layers which, like the muscle, are triangular in shape, with a truncated apex anteriorly and a free base posteriorly; these constitute the bilaminar *triangular ligament of the urethra* of English authors. The *superficial* layer of this ligament, called also *anterior* or *inferior* layer, is the author's *fascia diaphragmatis urogenitalis inferior;* it is continuous around the posterior margin of the (superficial) transverse perineal muscle with Colles's fascia, combining with that fascia to enclose a space in which lies the root of the penis and its accompanying muscles; it thus belongs to the extrapelvic system of fasciæ. The *deep* layer of the triangular ligament of the urethra, called also *posterior* or *superior* layer, is the author's *fascia diaphragmatis urogenitalis superior;* though connected around the posterior margin of the compressor urethræ with the superficial layer of the ligament, it belongs to the intrapelvic system of fasciæ; traced backwards it is seen to be a forward continuation of the *anal fascia;* laterally it joins the obturator fascia. The triangular ligament as a whole is sometimes called the *deep perineal fascia*, but this name should be avoided, having been applied also to Colles's fascia The name of *subpubic fascia* may also give rise to confusion, being applied by Macalister to the deep layer only of the triangular ligament, but by Quain to that structure in its entirety. The *triangular ligament* exists also in the *female*, and between its layers lies the *constrictor urethræ* or *transversus perinei profundus* muscle, but the **urogenital diaphragm* thus formed is almost completely divided by the vagina and the urethra into lateral halves (see Fig. 921, p. 531).

[100] *Transverse Ligament of the Pelvis* (Ibid.).—This occupies the subpubic angle adjacent to the truncated apex of the triangular ligament of the urethra, on a plane between that of the two layers of that ligament. Between the transverse ligament of the pelvis and the inferior pubic or subpubic ligament (*ligamentum arcuatum pubis*, according to Toldt) which occupies the apex of the subpubic angle are three foramina: a central foramen for the dorsal vein of the penis or clitoris, and lateral foramina for the dorsal artery and nerve of the penis or clitoris (see Figs. 920 and 921, p. 531, and also Part II., Fig. 456, p. 220, and Figs. 458 and 459, p. 221).

[101] *Transversus Perinei Profundus* (Ibid.).—This name is here applied to the whole triangular mass of muscle between the layers of the triangular ligament, not merely, as is sometimes the case in English works on anatomy, to the posterior strand of transverse fibres only. Other names have been applied, especially by Guthrie and by Wilson, to different strands of fibres, which they described as distinct muscles, but later English authorities agree with Von Langer and Toldt in regarding this separation as purely artificial. In the female, owing to the greater width of the subpubic angle, the muscle is wider than

in the male, and the name *transversus perinei profundus* is obviously preferable to that of constrictor urethræ. (See Fig. 921.)

[102] *Internal Pudic Artery and Vein* (Figs. 922 and 923, p. 532).—Macalister calls these vessels *pudic* without qualification. Usually, however, they are known as *internal pudic*, to distinguish them from the *external pudic* branches (*superior* and *inferior*) of the femoral vessels. Macalister calls these latter the *pubic* vessels. (See also note [110] below.)

[103] (Fig. 922, p. 532.) Though the author calls this the *divided edge of the obturator fascia*, it is, rather, the junction of the lower edge of this fascia with the lateral margins of the deep layer of the triangular ligament, the latter having been dissected off the upper surface of the transversus perinei profundus muscle. (See also notes [99] and [101] above.)

[104] *M. Sphincter Urethræ Membranaceæ* (Ibid.).—The muscle called by the author the *sphincter of the membranous urethra* consists merely of the circular fibres of the transversus perinei profundus muscle (see note [101] above) immediately surrounding the membranous part of the urethra.

[105] **Pudendal Venous Plexus* (Fig. 923, p. 532).—This term is not employed by English anatomists. Von Langer and Toldt ("Anatomy," 7th ed., p. 550) write: "The *pudendal plexus* receives beneath the symphysis the dorsal vein of the penis or clitoris, and, running back beside the base of the bladder and in the female beside the vagina, receives in both sexes the blood from the vesical plexus, and in the female also the blood from the uterine and vaginal plexuses. The pudendal plexus opens by several large vessels into the internal iliac vein." From this account it is evident that the pudendal plexus of these authors is made up of veins belonging in the male to the prostatic and vesical plexuses, and in the female to the vesical, vaginal and uterine plexuses, of English anatomists.

[106] *Fascia Endopelvina* (Ibid.).—Von Langer and Toldt's "Anatomy," 7th ed., p. 444: "The *visceral layer of the pelvic fascia* is exposed by the removal of the peritoneum and the subserous areolar tissue from the parietes of the bladder and the rectum. It is given off along the *white line of the pelvic fascia* [see note [59] above] from the *parietal layer* of that fascia (*obturator fascia*), and, reaching the bladder, gives a complete fibrous investment to its anterior and lateral surfaces. Along the white line, the visceral layer is connected with the rectal fascia (*fascia diaphragmatis pelvis superior*), but as they pass inwards the two layers separate, the rectal fascia, following the levator ani, the upper surface of which it covers, dips deeply into the pelvis, whilst the visceral layer stretches tranversely across to the bladder. Thus, between the rectal fascia and the visceral layer there exists on each side of the bladder a space, the *perivesical space*, in which, in addition to the ureter, the nerves of the bladder and the vesical plexus are enclosed. Behind the bladder, the visceral layer of the pelvic fascia assists in forming the pelviprostatic capsule or prostatic fascia [see note [74] above], and furnishes a delicate fibrous investment for the rectum."

I quote this passage in order to indicate clearly the significance attached in this work to the names given to the different parts of the pelvic fascia. Three layers pass inwards from the parietal layer of the pelvic fascia: the lowest of these, the *anal fascia*, covers the perineal surface of the levator ani; the next layer, the *rectal fascia*, covers the pelvic surface of that muscle: these correspond with the *superior* and *inferior fasciæ of the pelvic diaphragm* in the author's nomenclature. The uppermost layer is that described in the above extract as the *visceral layer of the pelvic fascia*. The relative positions of the three layers are well shown in Fig. 923. It will be noticed that I have avoided the use of the term *rectovesical fascia*, which is in England applied, sometimes to all three of the layers just enumerated, sometimes to one or two of them separately considered, and this gives rise to much confusion. The complexity that is apt to surround the description of the pelvic fascia is also, doubtless, in part dependent on the fact that, as Macalister says, "much of the definiteness of these layers in the adult is created by the knife and forceps" ("Anatomy," p. 446).

[107] *Hypogastric Artery* (Fig. 924, p. 533).—In the German anatomical nomenclature, the *common iliac* is said to divide into the *external iliac* and the *hypogastric arteries*. In England, however, the name *hypogastric artery* is given to that branch of the *internal iliac artery* which at the navel becomes the *umbilical artery*. When the placental circulation ceases, it is obliterated, and is represented in the adult by a fibrous cord.

[108] **Corpus Spongiosum Urethræ* (Fig. 927, p. 535).—This term, as applied to the female urethra, is not found in any works on anatomy to which I have access, not even in Von Langer and Toldt's "Anatomy." Quain (*op. cit.*, vol. iii., part iv., p. 258) writes: "Outside the submucous areolar tissue of the female urethra, there is a highly vascular structure, in which are many large veins"; and according to Macalister (*op. cit.*, p. 454): "Outside the mucosa [of the female urethra] is an elastic vascular submucosa covered by an imperfect erectile lamella. The use of the name *corpus spongiosum urethræ* for this erectile tissue is to be deprecated, suggesting as its does homology with the corpus spongiosum urethræ of the male. The counterparts of this structure in the female are the *vaginal bulbs* and the *partes intermediæ* of Kobelt. (See Figs. 884 and 885, p. 515, and note [91] above.)

[109] *Rectal Ampulla* (Fig. 932, p. 538).—This is the portion of the rectum, usually dilated, situate immediately above the *anal canal*. According to Macalister, the upper boundary of the *ampulla* is the lowest of *Houston's valves*; according to Quain, however, the middle one of these three folds (the *plica transversalis recti* of Kohlrausch—see note [11] above). The *rectal ampulla* is sometimes known as the *ampulla analis recti*.

[110] (Ibid.) The pudic vessels run in a canal formed by the obturator fascia, shown here (and also in Fig. 922, p. 532) in cross-section, and known as *Alcock's canal*. For the nomenclature of these vessels see note [102] above.

INDEX

TO THE

SPLANCHNOLOGY

INDEX

TO THE SPLANCHNOLOGY

Certain names in this Index have an asterisk (*) prefixed; these, as more fully explained in the Translator's Preface, being terms that form part of the English nomenclature used in this work, but which are not commonly employed by English anatomists. To other names a dagger (†) is prefixed; these are Latin names used by the author in the original work, but not included in the official nomenclature of the "Anatomische Gesellschaft." Abbreviation: App. = Appendix.

A.

ABDOMINAL ring, external, 501
              superficial, 501
        viscera, projection outlines of, 486-488
Aditus laryngis, 434, 435, 461
Adrenal, 480, 492, 494, 495, 521
Adventitious coat of the pharynx, 466 and App., note [14]
Ala nasi, 412
    of the thyroid cartilage, left, 458
                    right, 458
Alimentary canal, 438-445
†Allantois, 468, 520
Alveoli of the mucous membrane of the gall-bladder, 449
        pulmonary, 465
        pulmonum, 465
Alveolus dentalis, 426, 431
        of tooth, 426, 431
†Amnion, 468, 518, 519
Ampulla analis recti, 538 and App., note [109]
        ductus deferentis, 496, 500, 504, 505, 532
        of the Fallopian tube, 511-513
        rectal, 538 and App., note [109]
        recti, 538
        tubæ uterinæ, 511-513
        of the vas deferens, 496, 500, 504, 505, 532
Ampullæ of the galactophorous ducts, 567
Amygdala, 411 and note, 434-436
Anal portion of the rectum, 445, 538
Anatomy, topographical, of—
      abdominal viscera, 454-488
      bladder, 494, 496, 510, 511, 513, 532-537
      cæcum, 472-475, 485-487, 521, 522
      colon, 472-476, 481, 485-487
      duodenum, 478, 479, 481, 482, 487, 495
      Fallopian tube, 537
      gall-bladder, 476, 482, 495
      heart, 471, 482, 484, 486
      intestine (large), 472-476, 481, 485-487
              (small), 472, 473, 481
      kidneys, 480, 481, 483, 485, 487, 494, 521
      larynx, 511
      liver, 476, 480, 482-487, 495
      lungs, 471, 476-478, 482-487, 494
      œsophagus, 411, 456, 470, 471, 478, 479, 487
      ovary, 537
      pancreas, 478-480, 483, 484, 495
      pelvic viscera, 532-538
      peritoneum, 456, 472-484, 494, 495, 513, 533-538
      pleura, 470, 471, 476-479, 481-488, 494
      prostate gland, 497, 532, 534
      rectum, 486-488, 533-538
      salivary glands, 424, 425
      spleen, 479, 480, 482-484, 486, 487, 495
      stomach, 472, 476, 477, 480, 482-484, 486, 487, 495, 522
      suprarenal capsules, 480, 483, 494, 495, 521
      testis, 501
      thoracic and abdominal viscera, 470-488
      thymus gland, 410, 411, 467, 476
      thyroid body, 411, 470
      trachea, 411, 470, 471, 478, 482
      tube, Fallopian, 537
      ureter, 494, 532-536
      urethra (female), 510, 511, 535
Anatomy, topographical, of—
      urethra (male), 533, 534
      uterus, 513, 535, 537
      vesiculæ seminales and vasa deferentia, 496, 532-534
      viscera, abdominal, 454-488
              pelvic, 532-538
              thoracic and abdominal, 470-488
Angle of the mouth, 412, 415-417
*   venous, 482 and note
Angulus oris, 412, 415-417
        venosus, 482 and note
Annulus hæmorrhoidalis, 445, 538
        inguinalis abdominalis, 533
                subcutaneus, 501
        urethralis, 498, 506
Antrum of Highmore, 414
        pyloricum, 438
Anus, 488, 514, 520, 524, 526-529, 534, 535, 538
Aorta, abdominal, 481, 487, 494, 495, 521, 536
      arch of, 478, 479, 482
      ascending, 410, 411, 471, note, 482, 486
      bulb of, 471 and App., note [38]
      descending thoracic, 470, 471, 478-480, 487
Aortic arch, 478, 479, 482
Aperture, auriculoventricular, left, 471
                    right, 471
        of the glottis, 459, 461
                interarytenoid portion, 461
                intercordal portion, 461
                respiratory portion, 461
                vocal portion, 461
        inguinal, external, 501
                internal, 533
        of the larynx, superior, 434, 435, 461
        of the mouth, 411, 412
*   of the vestibule of the larynx, 461
Apex of the bladder, 494, 496, 534, 536, 537
      cartilaginis arytænoideæ, 458 and note
      cordis, 482, 486
      of the heart, 482, 486
      linguæ, 415, 419, 420
      of the lung, 463, 464, 483, 485, 487
      nasi, 412
      of the prostate gland, 505
      pulmonis, 463, 464, 483, 485, 487
      radicis dentis, 426, 427
      of the root of tooth, 426, 427
      of the suprarenal capsule (right), 492
Aponeurosis, palatine, 417, 418
        pharyngeal, 432, 433, 436
Apparatus digestorius, 409-456
        genito-urinary, 489-524
        respiratorius, 457-467
        urogenitalis, 489-524
Appendices epiploicæ, 443
Appendix, auricular, 411, note
                left, 484
                right, 410, 411, 471
        epididymidis, 502, 520
        fibrosa hepatis, 446, 447, 454
*   fibrous, of the liver, 446 and App., note [14], 447, 454
        testis [Morgagnii], 500, 502, 520, 521
        ventriculi laryngis, 460, 461
        vermiform, 444, 445, 474, 475, 537

Appendix, vesiculosa [Morgagnii], 512, 520
Arbor vitæ uterina, 512
Arch of the aorta, 478, 479, 482
  of the cricoid cartilage, 458
  dental, inferior, 419
    superior, 419
  glossopalatine, 415-419, 421
  palatine, anterior, 415-419, 421
    posterior, 415-418, 434, 236
  pharyngopalatine, 415-418, 434, 436
  tendinous, of the levator ani muscle, 530 and App., note [95], 532
    of the pelvic fascia, 497 and App., note [59], 532, 533
  venous, jugular, 410 and note
Arched summit of the pharynx, 411, 436
Arches, arterial, of the kidney, 491, 493
  venous, of the kidney, 493
Arcus aortæ, 478, 479, 482
  cartilaginis cricoideæ, 458
  dentalis, inferior, 419
    superior, 419
  glossopalatinus, 415-419, 421
  pharyngopalatinus, 415-418, 434, 436
  tendineus fasciæ pelvis, 497, 532, 533
    m. levatoris ani, 530, 532
Area cribrosa renis, 492 and App., note [61]
Areola mammæ, 517
Arteria *vel* arteriæ:
  arciformes renis, 491, 493
  bronchiales, 464
  cœliaca, 451, 494
  deferentialis, 501, 502, 533
  dorsalis clitoridis, 531
    penis, 508, 531
  epigastrica, inferior, 533
  gastrica brevis, 450
    sinistra, 451
  gastro-epiploica sinistra, 450
  hepatica, 446, 451
  hypogastrica, 533
  iliaca communis, 533
    externa, 533
  interlobulares renis, 493
  lienalis, 441, 450, 451
  lingualis, 410, 424, 425
  mesenterica, inferior, 451
    superior, 451, 479, 494, 495
  obturatoria, 533
  omphalomesenterica, 521
  ovarica, 511
  profunda linguæ, 414, 421
    penis, 506, 508
  pudenda interna, 513, 532, 537
  pulmonalis, 471, 482, 486, 488
    ramus dexter, 410, 411, 456, 465, 471
      sinister, 464, 465
  rectæ, App., note [56]
  renalis, 490, 491, 494
  spermatica interna, 494, 501
  submaxillaris, 405
  suprarenales superiores, 492
  suprarenalis, inferior, 492
  testicularis, 501, 522
  thyreoidea, inferior, 410, 470
    superior, 410, 425
  umbilicales, 519, 521-523
  uterina, 512
† uteroplacentaris, 519
Arterial arches of the kidney, 491, 493 and App., note [56]
Arteriolæ rectæ renis, 493 and App., note [56]
Artery or arteries:
  bronchial, 464
  cœliac, 451, 494
  coronary of the stomach, 451
  of the corpus cavernosum, 506, 508
  deferential, 501, 502, 533
  dorsal, of the clitoris, 531
    of the penis, 508, 531
  epigastric, deep, 533
Artery or arteries:
  epigastric, inferior, 533
  external maxillary, 410 and note
  facial, 410 and note
  gastric, 451
    short, 450
  gastro-epiploic, left, 450
  hepatic, 446, 451
  hypogastric, 533 and App., note [107]
    obliterated, vestige of, 533
  iliac, common, 533
    external, 533
    internal, 533
  interlobular, of kidney, 493
  lingual, 410, 424, 425
  mesenteric, inferior, 451
    superior, 451, 479, 494, 495
  obturator, 533
  omphalomesenteric, 521
  ovarian, 511
  of the penis, deep, 506, 508
    dorsal, 508, 533
  pudic, internal, 513, 532, 537
  pulmonary, 471, 482, 486, 488
    left, 464, 465
    right, 410, 411, 456, 465, 471
  radiate, of kidney, 493
  ranine, 414, 421
  renal, 490, 491, 494
  short gastric, 450
  spermatic, 494, 501, 522
  splenic, 440, 450, 451
  straight (true and false), of kidney, 493 and App., note [56]
  suprarenal, inferior, 492
    superior, 492
  thyroid, inferior, 410, 470
    superior, 410, 425
  umbilical, 519, 521-523
  uterine, 512, 519
  uteroplacental, 519
  of the vas deferens, 501, 502, 533
  vitelline, 521
Articulatio crico-arytænoidea, 459
  cricothyreoidea, 459, 460
Articulation, corniculo-arytenoid, 459 and App., note [23]
  crico-arytenoid, 459
  cricothyroid, 459, 460
Atrium, 411, note
  (cordis) dextrum, 411, 471, 486
    sinistrum, 411, 465, 471
  of the left auricle, 411, 465, 471
  of the right auricle, 411, 471, 486
Auricle, 411, note
  (equivalent to "pinna"), 424
  left, 411, 465, 471
  right, 411, 471, 486
Auricula cordis dextra, 410, 411, 471
  sinistra, 484
Axis, cœliac, 451, 494

B.

Band, ventricular, 461
Bands of longitudinal muscular fibres of the colon, 443, 444
  anterior, 444, 473, 478
  free, 443, 444, 473, 474
  inner, 443, 444, 473, 474
  mesocolic, 443, 444
  omental, 444, 473, 478
  posterior, 443, 444
Bar, Mercier's, 498 and App., note [61]
Bartholin, duct of, 424 and App., note [3]
Bartholin's glands, 500, 514-516, 535
Base of the arytenoid cartilage, 458 and App., note [26]
  of the bladder, 496, 497, 532, 533
  of the lung, 464, 483, 485
  of the nose, 412
  of the prostate gland, 496, 505
  of the renal pyramid, 491, 492
  of suprarenal capsule, 492 and App., note [52]
Basement membrane, 404

Basis cartilaginis arytænoideæ, 458 and App., note [26]
    glandulæ suprarenalis, 492
    nasi, 412
    prostatæ, 496, 505
    pulmonis, 464, 483, 485
    pyramidis (renis), 491, 492
Bauhin, valve of, 444 and note
Bell's muscles, App., note [61]
Bellini, ducts of, 492, 493
Bertin, columns of (renal), 491, 492
Bifurcatio tracheæ, 411, 462
Bifurcation of the trachea, 411, 462
Bile-duct, common, 440-442, 446, 449, 468
Bladder, gall-, see "Gall-bladder"
        urinary, 456, 486, 487, 496-498, 500, 504, 510, 511, 513, 520-523, 533-537
Blandin's gland, 420, 421
Blood-supply of medulla of kidney, App., note [56]
Body of the bladder (gall-), 449
            (urinary), 496, 497, 535, 536
    of the breast, 517
    of the clitoris, 515
    of the epididymis, 502
    of the gall-bladder, 449
    of the pancreas, 441, 480
    of the penis, 507, 526, 534
    of the seminal vesicle, 504
    of the stomach, 438, 480, 482, 484
    suprarenal, 480, 492, 494, 495, 521
    thyroid, 408, 411, 434, 466, 467, 470
        accessory, 466
    of the tongue, 414, 419
    of the uterus, 510, 511, 513, 518, 535, 537
    Wolffian, 468, 520, 521
Border of the kidney, external, 490, 491
            internal, 490, 491
    of the liver, anterior, 446, 462, 486
    of the lung, anterior, 464, 486
            inferior, 464, 483, 485-488
    of the mesosalpinx infundibulo-ovarian, App., note [82]
    of the ovary, anterior, 511
            attached, 511
            convex, 511, 537
            free, 511, 537
            posterior, 511, 537
            straight, 511
    of the pancreas, anterior, 441
            posterior, 441
            superior, 441
    of the prepuce, free, 508
    of the spleen, anterior, 450
            inner, 450
            posterior, App., note [19]
    striated, 404
    of suprarenal capsule, internal, 492
            superior, 492
    of the testicle, anterior, 502, 503
            posterior, 502
    of uterus, lateral, 512
Boundaries of the trigone of the bladder, App., note [61]
Bowman's capsule, 493
Branches of arterial arches of kidney, recurrent straight, App., note [56]
        bronchial, 462, 463, 465, 483, 485
        of the hepatic duct, 448
        splenic, of the splenic artery, 450
Breast, the, 471, 517
    supernumerary, 517
Bronchi (right and left), 462-465, 470, 471, 478
Bronchial branches, 462, 463, 465, 483, 485
Bronchioles, 465
        lobular, 465
        respiratory, 465
Brunner's glands, 407, 442
Bucca, 412
Buccal fat-pad, 414 and note
Bulb of the aorta, 471 and App., note [88]
    of the urethra, 500, 504, 506, 507, 533, 534
    vaginal, 515 and App., note [91], 535
Bulb of the vestibule, 515 and App., note [91], 535
Bulbus aortæ, 471
        urethræ, 500, 504, 506, 507, 533, 534
        vestibuli (vaginæ), 515, 535
Bursa omentalis, 452, 456, 468, 476-480, 484, 495
        ovarica, 511 and App., note [79], 537
        pharyngea, 434 and note, 436

C.

Cæcum, 444, 455, 472-475, 486-488, 536
        rudiment of, 451
Calices of the kidney, 491 and App., note [50], 492
Calyces renales, 491, 492
            majores, 491
            minores, 491, 493
Canal, Alcock's, App., note [110]
        alimentary, 438-445
        anal, 445, 538
        cervical, of uterus, 511, 512, 518
        of the epididymis, 502, 503
        incisor, 416 and note
        nasopalatine, remnant of, 416 and note
        obturator, 530
        pulp, 426, 427
        of Stensen, 416 and note
Canalis cervicis uteri, 511, 512, 518
        radicis dentis, 426, 427
Canals, portal, 448
Capsula adiposa renis, 479, 481, 484, 485
        articularis crico-arytænoidea, 459
        fibrosa [Glissoni], 448, 482
        glomeruli, 493
Capsule of the corpora cavernosa, fibrous, 506, 508
        of the crico-arytenoid articulation, 459
        of Glisson, 448, 482
        of Graafian follicle, fibrous, 512
        of glomerulus, 493
        of the kidney, fatty, 479, 481, 484, 485
                fibrous, 491, 493
        pelvi-prostatic, 505 and App., note [74], 532
        of the spleen, fibrous, 450
        of the submaxillary gland, 424
        suprarenal, 480, 492, 494, 495, 521
                accessory, 492
        of the testicle, fibrous, 503
Caput epididymidis, 502, 503, 521, 522
        gallinaginis, 498 and note, 505, 506
        pancreatis, 440, 441
Cardia, 438, 439, 477, 484, 486, 487
Carina urethralis (vaginæ), 514, 516
Cartilage or cartilages:
        arytenoid, 458 and App., note [26], 459, 461
        bronchial, 465
        corniculate, 458
        cricoid, 433, 458, 459, 462
        cuneiform, 460
        of the epiglottis, 420, 458, 459, 461
        Eustachian, 410, 435, 436
        of the external auditory meatus, 424
        of the larynx, 458
        of Santorini, 458
        thyroid, 420, 433, 458-460, 462
        tracheal, 461, 462
        triticeal, 459, 460
        of Wrisberg, 460
Cartilago *vel* cartilagines:
        arytænoidea, 458 and App., note [26], 459, 461
†   bronchiales, 465
        corniculata [Santorini], 458
        cricoidea, 433, 458, 459, 462
        cuneiformis [Wrisbergi], 460
        epiglottica, 420, 458, 459, 461
        laryngis, 458
        thyreoidea, 420, 433, 458-460, 462
        tracheales, 461, 462
        triticea, 459, 460
        tubæ auditivæ, 410, 435, 436
Caruncula major of duodenum, 440 and App., note [9]
        sublingualis, 419, 424

Carunculæ hymenales, 514
mystiformes, 514
Cauda epididymidis, 502, 503
pancreatis, 441, 480, 483
Cavity, abdominal, 472-488
of the amnion, 518
of cervix uteri, 511, 512, 518
laryngeal, 411, 461
mediastinal, anterior, 456, 471, 476, 494
posterior, 410, 456, 470, 471, 479, 483
see also "Mediastinum," and in addition footnote to p. 410 and App., note [24]
nasal, 410, 411
oral, 411, 414-423, and note to p. 414
pelvic, 467, 536
pericardial, 410, 411, 456, 471, 482, 484
peritoneal, 408, 452, 456, 480, 481, 484, 495
lesser, see "Sac, omental"
pharyngeal, 415, 416, 434, 461
pulp, 426, 427
of Retzius, 456, 534
uterine, 511, 512, 518
visceral, of head and neck, 410
Cavum dentis, 426, 427
Douglasi, 535, 537
laryngis, 411, 461
mediastinale anterius, 456, 471, 476, 494
posterius, 410, 456, 470, 471, 479, 483
nasi, 410, 411
oris, 411, 414-423
pelvis, 467, 536
pericardii, 410, 411, 456, 471, 482, 484
peritonæi, 408, 452, 456, 480, 481, 484, 495
pharyngis, 415, 416, 434, 461
pleuræ, 467, 471, 476, 479, 480, 482-484
uteri, 511, 512, 518
† viscerale capitis et colli, 410
Cells: chalice, 406
ciliated, 404
columnar, 404, 406
cubical, 404
cylindrical, 404
fusiform, 404
glandular, 405
goblet, 406
pavement, 404
pyramidal, 404
sphenoidal, 404
Cement, 426
Centrum tendineum (diaphragmatis), 446, 485
Cervix of the bladder, 496 and App., note [58]
of the glans penis, 508
uteri, 510-513, 518
divisions of, App., note [75]
Cheek, 412
Chin, 412
Choanæ, 434, 435
†Chorda dorsalis, 468
†Chorion, 468, 518, 519
Cilia, 404
Cisterna chyli, 494
Cleft, vulval, 514
Clitoris, 500, 514-516, 520
Cloaca, 520 and App., note [94], 524
Coat, adventitious, 407
of the pharynx, 466 and App., note [34]
fibrous, of the kidney, 491, 493
of the spleen, 450
mucous, 406, 407
muscular, 406, 407, 452
of the bladder, 496-498
of the ileum, 407
of the rectum, 445
of the stomach, 439
of the urethra (female), 498
of the uterus, 512, 518, 519
of the vas deferens, 501
serous, 407, 408
of the spleen, 450
Cœliac axis, 451, 494
Cœlom, see "Cavity, visceral"
Colic extremity of the ileum, 444
Colliculus cartilaginis arytænoideæ, 458 and App., note [24]
seminalis, 498, 505, 506
Collum dentis, 426, 430
glandis, 508
vesicæ felleæ, 449
Colon, 443, 451-456, 472-487
ascending (ascendens), 444, 453, 473, 475, 485-488, 522, 536
descending (descendens), 455, 474, 485, 486, 536, 537
hepatic flexure (flexura dextra), 472, 473, 475, 477, 482
sigmoid flexure (sigmoideum), 455, 474, 475, 521, 522, 534-537
splenic flexure (flexura sinistra), 451, 453, 474, 477-479
transverse (transversum), 443, 446, 473-475, 481, 482, 485, 486, 488
Column, vaginal, anterior, 514 and note, 516
posterior, 514 and note, 516
Columna nasi, 411
rugarum anterior, 514, 516
posterior, 514, 516
Columnæ rectales [Morgagnii], 445
renales [Bertini], 491, 492
Columns of Bertin (renal), 491, 492
of the rectum, 445 and App., note [12]
Commissura labiorum (oris), 419
(pudendi) anterior, 514
posterior, 514
Commissure of the lips, 419
of the vulva, anterior, 514
posterior, 514
*Cone, elastic, 459 and App., note [30]
Coni vasculosi, 502, 503 and App., note [72]
Connective tissue, parametric, 513 and App., note [84], 535
Conus elasticus (laryngis), 459
Cooper, Astley, fascia propria of, App., note [68]
Cord, genital, 521 and App., note [96]
spermatic, 501, 502, 523
umbilical, 518, 519, 521, 522
vocal, false, 461
inferior, 459, 461
superior, 461
true, 459, 461
Corium, see "Tissue, areolar"
Cornicula laryngis, 458
Cornu inferius cartilaginis thyreoideæ, 458
superius cartilaginis thyreoideæ, 458
of the thyroid cartilage, great, 458
inferior, 458
small, 458
superior, 458
Corona dentis, 426-430
glandis, 506-508
Corpus adiposum buccæ, 414
albicans, 512 and note
cavernosum penis, 500, 504, 506-508
urethræ, 500, 506-508, 527
clitoridis, 515
epididymidis, 502, 503
glandulare prostatæ, 505
Highmori, 503
linguæ, 414, 419
luteum, 512, 518
mammæ, 517
Morgagni, App., note [69]; see also "Hydatid of Morgagni"
pancreatis, 441, 480
penis, 507, 526, 534
spongiosum urethræ, 500, 506-508, 527
† muliebris, 535 and App., note [108]
uteri, 510, 511, 513, 518, 535, 537
ventriculi, 438, 480, 482, 484
vesicæ felleæ, 449
(urinariæ), 496, 497, 535, 536
vesiculæ seminalis, 504
Wolffi, 468, 520, 521

Corpuscles, Malpighian, of the kidney, 493
    of the spleen, 450
    of the Wolffian body, 520
Corpuscula renis (Malpighii), 493
Cortex of the kidney, 491-493
    of the suprarenal capsule, 492
Cotyledons of the placenta, 519
Cowper's glands, 500, 504, 506
Crena ani, 514, 528, 538
    clunium, 514, 528, 538
*Crest of the urethra (female), 498 and App., note [65]
    (male), 498 and App., note [63], 505, 506
Crista arcuata cartilaginis arytænoideæ, 458 and App., note [26]
    urethralis (muliebris), 498
        (virilis), 498, 506
Crown of tooth, 426-430
Crura of the diaphragm, 470, note
Crus clitoridis, 515
    penis, 504, 506, 507, 534
Crusta petrosa, 426
Crypt of a lingual lymphoid follicle, 423
Crypts of Lieberkühn, 407, 442, 443
    tonsillar, 418
Cul-de-sac of the stomach, great, 438, 477, 483, 484, 486
    small, 438
Cumulus oophorus, 512
Cupula pleuræ, 467, 470, 476-479, 483, 485, 487, 488
Curvatura ventriculi major, 438, 450, 476, 478, 486
    minor, 438, 439
Curvature of the stomach, great, 438, 450, 476, 478, 486
    small, 438, 439
*Curve of the rectum, perineal, 534 and note, 535, 538
    sacral, 534 and note, 535, 538
*Curves of the rectum, 534, note
Cushion of the epiglottis, 461
    of the Eustachian tube, 434, 436
Cusps of the crowns of the teeth, 427-429
Cuticula, 404
Cuticular layer, 404

D.

Dartos tunic, 501
Decidua reflexa, 518
    serotina, 518, 519
    vera, 518
Dens serotinus, 429, 430
Dental pulp, 426
Dentes, 426-431
    canini, 426-431
    decidui, 427, 428, 431
    incisivi, 426-431
†   inferiores, 427
    molares, 427-431
    permanentes, 427-431
    præmolares, 427, 429-431
†   superiores, 427
Dentine, 426, 427
Dentition, 428, 429, 431
Descensus testis, 522, 523
Descent of the testicle, 522, 523
Diaphragm, 470, 479, 482-487, 494, 521, 522
    of the mouth, 414
    pelvic, 513 and App., note [87], 528, 529, 533, 534
    urogenital, 529, 531 and App., note [89], 532-535
Diaphragma, 470, 479, 482-487, 494, 521, 522
    oris, 414
    pelvis, 513, 528, 529, 533, 534
    urogenitale, 529, 531-535
Digestive organs, 409-456
    abdominal and pelvic portions, 437-456
    cephalic and cervical portions, 409-436
Discus proligerus, 512
Diverticula ampullæ (ductus deferentis), 504
†Diverticulum duodenale [Vateri], 440, 442
    of Vater, 440 and App., note [9], 442
Dorsum linguæ, 411, 416, 417, 419
    nasi, 412
    of the nose, 412
    of the tongue, 411, 416, 417, 419
Douglas, fold of, 510 and note, 511, 534, 537
Douglas, pouch of, 510, note, 511, 513, 535, 537
Duct or ducts:
    Bartholin's, App., note [3]
    of Bellini, 492, 493
    bile-, common, 440-442, 446, 449, 468
    of Cowper's gland, excretory, 504, 506, 534
    cystic, 446, 449
    ejaculatory, 498, 500, 504-506
    excretory, 405, 406
    galactophorous, 517
    of Gartner, 512, 520, 521
    hepatic, 446, 449
    lingual, 420 and App., note [1]
    mamillary, 517
    mesonephric, 468, 520, 521
    Müllerian, 520, 521
    pancreatic, 440-442
        accessory, 440-442
    para-urethral, 514 and App., note [88], 516
    parotid, 413, 416, 424, 425
    pronephric, 520, 521
    prostatic, 498, 505
    Rivini's, App., note [3]
    of Rivinus, App., note [3]
    Santorini's, 440-442
    seminal, 498, 500, 504-506
    of seminal vesicle, excretory, 504, 505
    Stensen's, 413, 416, 424, 425
    sublingual, greater, 424 and App., note [3]
        lesser, 424 and App., note [3]
    submaxillary, 414, 424, 425
    of testicle, efferent, 502, 503
    thyroglossal, App., note [1]
    umbilical, 468
    vitelline, 468
    Walther's, App., note [3]
    Wharton's, 414, 424, 425
    Wirsung's, 440-442
    Wolffian, 468, 520, 521
Ductuli alveolares, 465
    efferentes testis, 502, 503
    epoophori transversi, 512
Ductulus aberrans (inferior), 502, 503, 520
    (superior), 502, 503
Ductus choledochus, 440-442, 446, 449, 468
    communis choledochus, 440-442, 446, 449, 468
    cysticus, 446, 449
    deferens, 494, 496, 500-504, 520, 522, 523, 533, 536
    ejaculatorius, 498, 500, 504-506
    epididymidis, 502, 503
    epoophori longitudinalis [Gartneri], 512, 520, 521
    excretorius, 405
        glandulæ bulbo-urethralis, 504, 506, 534
        vesiculæ seminalis, 504, 505
    hepaticus, 446, 449
    incisivus, 416
    lactiferi, 517
    lingualis, 420
    Muelleri, 520, 521
    nasopharyngeus, App., note [4]
†   omphalo-entericus, 468
    pancreaticus accessorius [Santorini], 441, 442
        [Wursungi], 440-442
†   papillares (renis), 493
    para-urethrales, 514, 516
    parotideus [Stenonis], 413, 416, 424, 425
    prostatici, 498, 505
    sublinguales minores, 524
    sublingualis major, 524
    submaxillaris [Whartoni], 414, 424, 425
    venosus [Arantii], 452, 521
    Wolffii, 468, 520, 521
Duodenum, 438 and App., note [7], 439-442, 451, 453, 456, 468, 478, 479, 487
    ascending portion (pars ascendens), 438 and App., note [7], 440, 454
    descending portion (pars descendens), 438 and App., note [7], 440, 441, 476
    inferior portion (pars inferior), 438 and App., note [7], 440

Duodenum, superior portion (pars superior), 438 and App., note [7], 440, 477, 495, 522
    transverse portion (pars horizontalis), 438 and App., note [7], 440, 456, 481
Duverney's glands, 500, 514-516, 535

E.

Edge of teeth (incisor and canine), inner, 430
    outer, 429, 430
  of the tongue, 419-421
Elevation, caudal, 524
    coccygeal, 524
Eminence of the cartilage of Santorini, 461
    of the cartilage of Wrisberg, 461
    of the corniculum laryngis, 461
    of the cuneiform cartilage, 461
    genital, 520, 521, 524
Enamel, 426, 427
Epididymis, 500-503, 520, 522
Epiglottis, 415, 419, 435, 461
    stalk of the, 458
Epiploon, see "Omentum" and note to p. 456
Epithelia, classification of, 404, note
Epithelium, 404, 468
    stratified, 404, 406
Epoophoron, 500, 512, 513, 520, 521
Eustachian tube, 410, 411, 434-436
    bony portion, 436
    cartilage of, 410, 435, 436
    cushion of, 434, 436
    membranous portion of, 433, 436 and note
    pharyngeal orifice of, 411, 436
Excavatio recto-uterina, 511, 513, 535, 537
    rectovesicalis, 456, 534
    vesico-uterina, 511, 535, 537
Extremitas inferior lienis, 450, 482, 486
    renis, 490-492
    testis, 502
  superior lienis, 450, 483
    renis, 480, 490-492
    testis, 502, 503
  tubaria ovarii, 511
  uterina ovarii, 511, 537
Extremity of the coccyx, 529, note
    of the Fallopian tube, fimbriated, App., note [80]
    of the kidney, inferior, 490-492
      superior, 480, 490-492
    of the ovary, inferior, 511, 537
      superior, 511
      tubal, 511
      uterine, 511, 537
    of the spleen, inferior, 450 and note, 482, 486
      superior, 450, 483
    of the testicle, inferior, 502
      superior, 502, 503

F.

Face, 412
    frontal section of, 414
Facet, arytenoid (of the cricoid cartilage), 458
    thyroid (of the cricoid cartilage), 458
Facies, 412
    anterior glandulæ suprarenalis, 492
      pancreatis, 441
      prostatæ, 505
      renis, 490
    articularis arytænoidea, 458
      cartilaginis arytænoideæ, 458
      thyreoidea, 458
    buccalis dentis, 428-430
    contactus dentis, 430
    costalis pulmonis, 464, 486
    diaphragmatica lienis, 450
      pulmonis, 464
    gastrica lienis, 450, 479
    inferior hepatis, 446, 447
      linguæ, 419-421
      pancreatis, 441
    intestinalis uteri, 511, 513, 535
Facies, labialis dentis, 430
    lateralis dentium (incisivorum et caninorum), 429, 430
      ovarii, 511
      testis, 502, 521
    lingualis dentis, 428, 430
    masticatoria, 428, 429
    medialis dentium (incisivorum et caninorum), 430
      ovarii, 511, 537
      testis, 502
    mediastinalis pulmonis, 463, 464
    posterior dentium (præmol. et molarium), 428, 429
      glandulæ suprarenalis, 492
      hepatis, 446, 447
      pancreatis, 441
      prostatæ, 505, 506, 532
      renis, 490
    renalis lienis, 450
    superior hepatis, 446
    urethralis penis, 507
    vesicalis uteri, 511, 537
Fallopian tube, 455, 500, 510-513, 518, 520, 521, 535, 537
Fang of tooth, 426 and note, 428
Fascia, anal, App., note [85], 526, 532 and App., note [106], 533
    buccopharyngea, 414, 415, 417, 418
    buccopharyngeal, 414, 415, 417, 418, 432, App., note [34]
    Colles's, 526 and note, 527
    cremasteric (Cooperi), 501 and App., note [68], 523
    diaphragmatis pelvis inferior, 513, 526, 532, 533
      superior, 497, 513, 532, 533, 537
    urogenitalis inferior, 529
      superior, 532
    endopelvina, 532, 533
    gluteal, 526 and note
    iliac, 494, 533
    infundibuliform, 501 and App., note [68], 502, 503, 523
    intercolumnar, App., note [65]
    linguæ, 420-423
    masseteric, 415 and note
    obturator, 528-530, 532 and App., note [103], 533
    parotid, 415 and note
    parotideomasseteric, 415 and note
    pelvic, parietal layer, 528-530, 532 and App., note [106], 533
      visceral layer, 497 and App., note [59], 532 and App., note [106], 533, 537; see also "Fascia, anal," and "Fascia, rectal"
    pelviprostatic, 505 and App., note [74], 532
    of penis, deep, 508, 526, 533
      superficial, 508
    perineal, 526, note
    of the perineum, deep, 526, note; see also "Ligament, triangular (of the urethra)"
      superficial, 526 and note
    pharyngobasilaris, 432, 433, 436
    post-pharyngeal, 432, 466, and App., note [34]
    propria (of Astley Cooper), App., note [68]
    prostatic, 505 and App., note [74], 532
    rectal, 497, 513, 532 and App., note [106], 533,
    rectovesical, App., note [106]
    salpingopharyngea, 436
    spermatic, App., note [68]
    subpubic, App., note [85]
    superficialis perinei, 526, 527
    of the tongue, 420-423
    visceral layer of the pelvic, 497 and App., note [59], 532 and App., note [106], 533, 537
Fat-pad, buccal, 414 and note
Fauces, 411, 415-417, 434, 435
    isthmus of the, 411, 417, 434, 435
Faucial ring, lymphoid, 411, note
Ferrein's pyramids, 493
Fibræ obliquæ (tunicæ muscularis ventriculi), 439
Fibres, oblique, of the muscular coat of the stomach, 439
Fibrocartilage of the foramen lacerum medium, 432, 436
Fibrocartilagio basalis, 432, 436
Fimbria, ovarica, 511
Fimbriæ of the Fallopian tube, 511
    tubæ uterinæ, 511

Fissure or fissures:
of the ductus venosus, 447; also footnote [6] on this page, and App., note [15]
of the gall-bladder, 447 and note
longitudinal, of the liver, 447; also footnote [6] on this page, and App., note [15]
of the lung, interlobar, 464 and note, 483, 485, 487, 488
portal, 447 and App., note [16]
sagittal, of the liver, 447 and note
transverse, of the liver, 447 and App., note [16]
umbilical, of the liver, 447 and note, 495
of the vena cava, 447; also footnote [6] on this page and App., note [16]
Flexura coli dextra, 472, 473, 475, 477, 482
sinistra, 451, 453, 474, 477-479
duodeni inferior, 438, 440, 481
superior, 438, 440, 485
duodenojejunalis, 438, 440, 451, 454, 474, 475, 484, 494
perinealis (recti), 534, 535, 538
sacralis (recti), 534, 535, 537, 538
Flexure of the colon, hepatic, 472, 473, 475, 477, 482
sigmoid, 455, 474, 475, 521, 522, 534-537
splenic, 451, 453, 474, 477-479
duodenal, inferior, 438 and App., note [6], 440, 481
superior, 438 and App., note [6], 440, 485
duodenojejunal, 438, 440, 451, 454, 474, 475, 484, 494
Fold or folds:
aryteno-epiglottic, 415, note, 461
of the bladder, mucous, 498
"bloodless," of Treves, 455
of the colon, sigmoid, 443, 444
of Douglas, 510 and note, 511, 534, 537
duodenal, inferior, App., note [20], 474
superior, App., note [20], 474
of the duodenal diverticulum, imbricated, 440
duodenojejunal, 454 and App., note [20], 474
duodenomesocolic, 454 and App., note [20], 474
of the duodenum, longitudinal, 440 and App., note
epigastric, 536, 537
of the Fallopian tube (longitudinal, of the mucous membrane), 512, 513
fimbriated, 419, 421
genital, App., note [93], 524
glosso-epiglottic, lateral, 415, note, 419, 461
median, 419 and note, 420, note
hypogastric, 472, 494, 522, 536, 537
ileocæcal, 455
infundibulopelvic, 455, 510, 511, 535, 537
of the laryngeal nerve (superior), 434 and note, 461
nasopharyngeal, 436 and App., note [4]
ovariopelvic, 455, 510, 511, 535, 537
pancreaticogastric, 479 and App., note [44]
peritoneal, App., note [13]
pharyngoepiglottic, 415 and note, 434, 435, 461
of the pleura, adipose, 476, 494
fatty, 476, 494
pleurocolic, 474 and note, 477 and App., note [41], 479, 483
rectovesical, 536
recto-uterine, 510, note, 537, note
of the rectum, mucous, 445
transverse, 445 and App., note [11], 538
salpingopalatine, 436
salpingopharyngeal, 434, 436
subcæcal, 455
sublingual, 414, 419, 424
triangular, 416 and note, 419
umbilical, lateral, 472, 494, 522, 536, 537
median, 472, 494, 536, 537
urachal, 472, 494, 537, 537
ureteric, 498 and App., note [61]
Follicle, Graafian, 512
primitive, 512
Follicles of Lieberkühn, 407, 442, 443
lymphoid, 407, 440, 442, 443, 445
of the spleen, 450
of the tongue, 419, 421, 423
Folliculi linguales, 419, 421, 423
oophori primarii, 512
vesiculosi [Graafi], 512
Foramen apicis dentis, 426, 427
Foramen cæcum linguæ [Morgagnii], 419-421
epiploicum [Winslowi], 478, 479
lacerum medium, fibrocartilage of the, 432, 436
of the thyroid cartilage, 459 and App., note [29], 460
thyroideum, 459, 460
of Winslow, 478, 479
Foramina papillaria (renis), 492 and App., note [51]
Fornix pharyngis, 411, 436
vaginæ, 511, 512, 516, 537
Fornix, vaginal, 511 and App., note [78], 512, 516, 537
anterior, App., note [78]
lateral, App., note [78]
posterior, App., note [78], 537
Foreskin, 508, 524
Fossa or fossæ:
cæcalis, 455, 537
of circumvallate papilla, circular, 423
diaphragmaticohepatic, App., note [23]
digital, 502, 503
ductus venosi, 447
duodenal, inferior, App., note [20]
superior, App., note [20]
duodenojejunal, 454 and App., note [20], 474
of epididymis, digital, 502, 503
of the gall-bladder, 447 and note
ileocæcal, 455 and App., note [23]
inferior, 455 and App., note [23]
superior, App., note [23], 475
ileocolic, App., note [23], 475
iliacosubfascialis, 494 and App., note [67]
intersigmoid, 455, 522
ischiorectal, 513, 526, 527, 529, 530
nasal, 410, 411
navicularis of the male urethra, 506, 508
urethræ (Morgagnii), 506, 508
(vestibuli vaginæ), 514, 515
of the vulva, 514 and App., note [90], 515
of the omental sac, splenic, 479 and App., note [44]
superior, 479 and App., note [44]
paracolic, 455
peritoneal, App., note [21]
phrenohepatic, 454 and App., note [23]
of Rosenmüller, 434, 436
sagittalis dextra (hepatis), 447
sinistra (hepatis), 447
subcæcal, 455, 537
supratonsillaris, 415, note, 416
venæ cavæ, 447
umbilicalis, 447, 495
vesicæ felleæ, 447
Fossulæ tonsillares, 418
Fovea inguinalis (medialis lateralis), 536
oblonga (cartilaginis arytænoideæ), 458 and App., note [26]
supravesicalis, 536
triangularis (cartilaginus arytænoideæ), 458 and App., note [26]
Foveola coccygea, 528, note
of renal papilla, App., note [51]
Fourchette, 514
Fræna of the ileocæcal valve, 444 and note
Frænulum carunculæ duodeni, 440 and App., note [9]
pudendi, 514
Frænum of the clitoris, 514-516
epiglottidis, 419, note, App., note [2]
linguæ, 419
of the lower lip, 419
of Morgagni, 444, note
of the prepuce, 508
præputii, 508
of the tongue, 419
of the upper lip, 416
Framework, reticular, of the spleen, 450
Frenula valvulæ coli, 444
Frenulum clitoridis, 514-516
labii inferioris, 419
superioris, 416
labiorum (pudendi), 514
linguæ, 419
præputii, 508

- Fundus of the bladder (urinary), 496, 497, 532, 533
  - of the gall-bladder, 446, 449, 476, 486
  - of the stomach, 438, 477, 483, 484, 486
  - uteri, 511, 518, 537
  - ventriculi, 438, 477, 483, 484, 486
  - vesicæ felleæ, 446, 449, 476, 486
    - (urinariæ), 496, 497, 532, 533
- Funiculus spermaticus, 501, 502, 523
  - umbilicalis, 518, 519, 521, 522
- Furrow (see also "Sulcus" and "Groove"):
  - dorsal, of the penis, 507
  - post-anal, 514, 528, 538
  - urethral, of the corpora cavernosa, 507

G.

- Gall-bladder, 446, 449, 453, 476-478, 482, 485, 486, 495, 522
- Ganglion submaxillare, 425
  - submaxillary, 425
- Gartner, duct of, 512, 520, 521
- Gaster, 438, 439
- Generative organs, female, 509-524
  - male, 499-508
- Genital cord, 521 and App., note [98]
  - eminence, 520, 521, 524
  - fold, App., note [93], 524
  - tubercle, 520, 524
- Genito-urinary apparatus, 489-524
- Germs, dental, 428, 431
  - of the teeth, 428, 431
- Gingiva, 414-416, 419, 426, 429, 431
- Giraldès, organ of, 500, 502, 503, 520
- Glands, 405
- Gland or glands:
  - acinous, 405
  - agminated, 442
  - of the aryteno-epiglottic fold, 460 and App., note [31]
  - Bartholin's, 500, 514-516, 535
  - Blandin's 420 and note, 421
  - bronchial, 465 and note
  - Brunner's, 407, 442
  - buccal, 413 and note, 415, 424
  - coccygeal, 534
  - Cowper's, 500, 504, 506
  - duodenal, 407, 442
  - Duverney's, 500, 514-516, 535
  - epiglottic, App., note [2]
  - follicular, of the tongue, 419, 421, 423
  - labial, 405, 413
  - laryngeal, 460 and App., note [31]
  - Lieberkühn's, 407, 442, 443
  - lingual, 420, 421
    - (apical), 420 and note, 421
  - lymphatic, bronchial, 411, 464, 465, note, 471, 484
    - cardiac, 482 and note, 485
    - mediastinal, anterior, 482, note
      - posterior, 482 and note, 484
  - molar, 413 and note, 415, 424
  - Montgomery's, 517
  - mucous, 406, 418, 423
    - (of the bile-ducts), 440, 448 and note, 449
  - Nuhn's, 420 and note, 421
  - palatine, 414-418
  - parotid, 415, 424, 425, 434
    - (accessory), 424
  - post-epiglottic, 460 and App., note [31]
  - post-arytenoid, 460 and App., note [31]
  - prostate, 445, 497, 498, 500, 504-506, 532-534
  - racemose, 405
  - salivary, 424, 425
  - sebaceous, 413
    - of the areola mammæ, 517
  - serous (of the tongue), 423
  - Skene's, 514 and App., note [88], 516
  - socia parotidis, 424
  - solitary, 407, 440, 442, 443, 445
  - sublingual, 414, 424, 425
  - submaxillary, 405, 424, 425, 434
  - suburethral, 500, 504, 506, 514-516, 526, 535
  - suprarenal, 480, 492, 494, 495, 521
    - accessory, 492
- Gland or glands:
  - thymus, 410, 411, 456, 466, 467, 476
  - thyroid, 408, 411, 434, 466, 467, 470
  - tracheal, 459, 461, 465
  - tubular, 405, 406
  - of the urethra (female), 498
- Glandulæ, 405
- Glandula *vel* glandulæ:
  - † alveolaris composita, 405
    - † simplex, 405
  - areolares [Montgomerii], 517
  - bronchiales, 465
  - buccales, 413, 415, 424
  - bulbo-urethralis [Cowperi], 500, 504, 506, 534
  - duodenales [Brunneri], 407, 442
  - intestinales [Lieberkuehni], 407, 442, 443
  - labiales, 405, 413
  - laryngeæ, 460
  - linguales, 420, 421
  - lingualis anterior [Blandini, Nuhni], 420, 421
  - mucosæ, 406, 418, 423
    - biliosæ, 440, 448, 449
  - palatinæ, 414-418
  - parotis, 415, 424, 425, 434
    - accessoria, 424
  - † salivales, 424, 425
  - † serosæ (linguæ), 423
  - sublingualis, 414, 424, 425
  - submaxillaris, 405, 424, 425, 434
  - suprarenalis, 480, 492, 494, 495, 521
    - accessoria, 492
  - thyreoidea, 408, 411, 434, 466, 467, 470
    - accessoria suprahyoidea, 466
  - thyreoideæ accessoriæ, 466
  - tracheales, 459, 461, 465
  - † tubulosæ, 405, 406
  - urethrales (muliebres), 498
  - vestibularis major [Bartholini], 500, 514-516, 535
- Glans clitoridis, 498, 510, 514-516, 524, 529
  - penis, 506-508, 524
- Glisson's capsule, 448, 482
- Globus major of epididymis, 502, 503, 521, 522
  - minor of epididymis, 502, 503
- Glomeruli (renis), 493
- Glomerulus, coccygeal, 534
- Glomus coccygeum, 534
- Glottis, 461
- Graafian follicle, 512
- Groove (see also "Furrow" and "Sulcus"):
  - of the lung, aortic, 464
    - subclavian, 464
  - œsophageal, 447, note
  - (in the pancreas) for the splenic vein, 441
    - for the splenic artery, 441
- Gubernaculum testis [Hunteri], App., note [95], 522, 523
- Gum, 414-416, 419, 426, 429, 431
- Guthrie's muscles, App., note [101]

H.

- *Hæmorrhoidal ring, 445 and App., note [12], 538
- Hair, pubic, 514
- Haustra coli, 443
- Head of epididymis, 502, 503, 521, 522
  - of the pancreas, 440, 441
- Heister's valve, 449
- Helvetius, ligament of, 438 and App., note [5], 439
- Hemisphere of the bulb of the urethra, 507
- Hemisphæria bulbi urethræ, 507
- Henle, looped tubule of, 493 and App., note [54]
- Hepar, 446-449, 456, 472, 476-478, 480, 482-486, 488, 495, 521, 522
- Highmore, antrum of, 414
  - body of, 503
- Hilum of the kidney, 490, 492
  - of the lung, 464, 465, 484
  - of the ovary, 512
  - of the spleen, 450
  - of the suprarenal body, 492
- Hilus glandulæ suprarenalis, 492
  - lienis, 450
  - ovarii, 512

Hilus pulmonis, 464, 465, 484
renalis, 490, 492
Home's lobe (of the prostate gland), App., note [73]
Homology of reproductive organs (male and female), 500, 520, 524
Houston's valves, App., note [11]; App., note [109]
Hydatid of Morgagni, in the female, 512, 520
in the male, 500, 502 and App., note [60], 520, 521
pedunculated, 502 and App., note [60], 520
sessile, 500, 502 and App., note [60], 520, 521
Hymen (femininus), 510, 515, 516

I.

Ileum, 407, 442, 444, 455, 456, 473, 475
Impressio colica (hepatis), 446, 447
duodenalis (hepatis), 447
gastrica (hepatis), 446, 447
hepatica (renis), 490
lienalis (renis), 490
muscularis (renis), 490
œsophagea (hepatis), 447
renalis (hepatis), 446, 447
suprarenalis (hepatis), 446, 447
Impression of the kidney, hepatic, 490
muscular, 490
splenic, 490
of the liver, adrenal, 446, note, 447, note
colic, 447
œsophageal, 447
renal, 446, 447
suprarenal, 446, 447
Incisura cardiaca (pulmonis sinistri), 464
interarytænoidea, 461
interlobaris (pulmonis), 464, 483, 485, 487, 488
pancreatis, 441
thyreoidea (superior), 458
umbilicalis (hepatis), 446, 447
Infundibula of the kidney, 491 and App., note [50]
Infundibulum of the Fallopian tube, 500, 510, 511, 520, 537
tubæ uterinæ, 500, 510, 511, 520, 537
Intestine, large, 443, and see "Colon"
small, 442, 521; see also "Duodenum," "Jejunum," and "Ileum"
Intestinum cæcum, 444, 455, 472-475, 486-488, 536
crassum, 443
ileum, 407, 442, 444, 455, 456, 473, 475
jejunum, 442, 454, 473-475, 481
rectum, 445, 456, 475, 486-488, 513, 530, 533-538
pars analis, 445, 538
tenue, 442, 521
Isthmus of the Fallopian tube, 500, 511-513, 537
of the fauces, 411, 417, 434, 435
faucium, 411, 417, 434, 435
glandulæ thyreoideæ, 411, 466
prostatæ, 504, 505
of the thyroid, body, 411, 466
tubæ uterinæ, 500, 511-513, 537
uteri, 511, note

J.

Jejunum, 442, 454, 473-475, 481
Jugular venous arch, 410 and note

K.

Kerkring, valves of, 440, 442
Kidney, 408, 479-481, 483-485, 487, 488, 490-495, 521
medulla of, blood-supply, App., note [56]

L.

Labia oris (inferius, superius), 412-419
Labium anterius cervicis uteri, 511, 516
inferius valvulæ coli, 444
majus pudendi, 510, 514-516, 520, 524, 529
minus pudendi, 510, 514-516, 524, 529
posterius cervicis uteri, 511, 516
superius valvulæ coli, 444
vocale, 461
Labyrinth of cortex of kidney, 493
Lacunæ urethrales [Morgagnii], 506
Lamina *vel* laminæ:
cartilaginis cricoideæ, 458
thyreoideæ (dextra, sinistra), 458
mediastinales, 410, 476, 479, 483, 486, 487, 494
membranacea tubæ auditivæ, 433, 436
mesenterii propria, 452
muscularis mucosæ, 406, 407
† omenti, *vide* "Omentum majus"
propria mucosæ, 404-407, 422, 423
Lamina of the cricoid cartilage, 458
Laryngeal prominence, 411
Larynx, 458-461, 463
Layer, circular, of muscular coat, 407, 452
of the rectum, 445
of the stomach, 439
cuticular, 404
longitudinal, of muscular coat, 407, 452
of the rectum, 445
of the stomach, 439
Layers of the mediastinum, 410, 476, 479, 483, 486, 487, 494
Lesser pancreas, 441, note
Levator ani muscle, tendinous arch of, 530, 532 and App., note [98]
Lieberkühn's follicles, 407, 442, 443
Lien, 450-453, 477, 479, 480, 482-484, 486, 487, 495, 522
accessorius, 450
Lieutaud's trigonum vesicæ, 498
Ligament or ligaments:
annular, of the trachea, 459-462
anococcygeal, 527 and note, 528, 529
of the bladder, false, lateral, 535-537
posterior, 536
superior, 472, 494, note, 536, note, 537, note
suspensory, 472, 494, note, 536, note, 537, note
true, anterior, 497 and App., note [50], 533
lateral, App., note [50]
broad, of the liver, 446, 447, 472, 476, 480, 495
of the lung, 464
of the uterus, 510-513, 535, 537
ceratocricoid, anterior, 460
lateral, 459
posterior, 459
of the clitoris, suspensory, 515
corniculopharyngeal, 459 and App., note [27]
coronary, of the liver, 446
costocolic, 474 and note, 477 and App., note [41], 479, 483
crico-arytenoid, posterior, 459
cricopharyngeal, 435, 459 and App., note [27]
cricothyroid, 459, 460, 462, 466
cricotracheal, 459, 462
diaphragmatic, of the Wolffian body, 521 and App., note [96]
of the ductus venosus, 446 and App., note [15]
of the epididymis, inferior, 502 and App., note [70]
superior, 502 and App., note [70]
falciform, of the liver, 446, 447, 472, 476, 480, 495
gastrocolic, 476 and App., note [40]
gastrosplenic, 450, 477, 479, 480, 495
of Helvetius, 438 and App., note [6], 439
hepatoduodenal, 477 and App., note [42], 478-480
hepatorenal, 478, 480
hyo-epiglottic, 420 and App., note [2], 459
infundibulopelvic, 455, 510, 511, 535, 537
inguinal, of the Wolffian body, 521 and App., note [95]
lateral, of the liver, left, 446, 447, 477
right, 446, 447, 478
of the liver, broad, 446, 447, 472, 476, 480, 495
coronary, 446
falciform, 446, 447, 472, 476, 480, 495
lateral, left, 446, 447, 477
right, 446, 447, 478
round, 446, 453, 472, 476, 480
suspensory, 446, 447, 472, 476, 480, 495
oblique, of the thyroid cartilage, App., note [25]
ovariopelvic, 455, 510, 511, 535, 537
of the ovary, 510-513, 518, 537

Ligament or ligaments:
- of the ovary (suspensory), 455, 510, 511, 535, 537
- of the pelvis, transverse, 531 and App., note [100], 532
- peritoneal, App., note [13]
- pharyngo-epiglottic, 415, note
- phrenocolic, 474 and note, 477 and App., note [41], 479, 483
- pterygomandibular, 417, 433
- pterygomaxillary, 417, 433
- puboprostatic, 497 and App., note [59], 533
- rectouterine, 510, note, 537, note
- rectovaginal, 510, note
- round, of the liver, 446, 453, 472, 476, 480
  - of the uterus, 455, 511, 513, 535 and App., note [95], 537
- suspensory, of the bladder, 472, 494, note, 536, note, 537, note
  - of the clitoris, 515
  - of the liver, 446, 447, 472, 476, 480, 495
  - of the ovary, 455, 510, 511, 535, 537
- thyro-arytenoid, inferior, 459 and App., note [30]
  - superior, 459
- thyro-epiglottic, 459
- thyrohyroid, lateral, 459, 460
  - middle, 420, 459, 460
- of the thyroid body, lateral, 466
  - cartilage, oblique, App., note [25]
- of the tip of the cocyx, 528 and note
- transverse, of the pelvis, 531 and App., note [100], 532
- triangular, of the urethra, deep layer, 529, and App., notes [85] and [99]
  - superficial layer, 529, 532 and App., note [99]
- umbilical, lateral, 533
  - median, 496, 497, 520, 533
- urachal, 496, 497, 520, 533
- of the urethra, triangular, inferior or superficial layer, 529 and note, 531, note, App., notes [99-101]
  - superior or deep layer, 529, note, 532, App., notes [85], [99-101], [103]
- uterosacral, 510 and note, 511, 535, 537
- of the uterus, broad, 510-513, 535, 537
  - round, 455, 511, 513, 535, 537
    - development of, App., note [96]
- of the vena cava, 446, 447
- ventricular, 459
- of the Wolffian body, 521 and App., note [96]

Ligamentum *vel* ligamenta:
- anococcygeum, 527-529
- annularia (trachealia), 459-462
- apicis coccygis, 528
- ceratocricoideum anterius, 460
  - laterale, 459
  - posterius, 459
- corniculopharyngeum, 459
- coronarium (hepatis), 446
- crico-arytænoideum posterius, 459
- cricopharyngeum, 435, 459
- cricothyreoideum (medium), 459, 460, 462, 466
- cricotracheale, 459, 462
- epididymidis inferius, 502
  - superius, 502
- falciforme (hepatis), 446, 447, 472, 476, 480, 495
- gastrocolicum, 476
- gastrolienale, 450, 477, 479, 480, 495
- hepatocolicum, 477
- hepatoduodenale, 477-480
- hepatogastricum, 477, 478, 480
- hepatorenale, 478, 480
- hyo-epiglotticum, 420, 459
- hyothyreoideum laterale, 459, 460
  - medium, 420, 459, 460
- latum pulmonis, 464
  - uteri, 510-513, 535, 537
- ovarii proprium, 510-513, 518, 537

Ligamentum *vel* ligamenta:
- phrenicocolicum, 474, 477, 479, 483
- puboprostaticum (pubovesicale), laterale, 533
  - medium, 497, 533
- pulmonale, 464
- pylori, 438, 439
- suspensorium clitoridis, 515
  - glandulæ thyreoideæ, 466
  - ovarii, 455, 510, 511, 535, 537
- teres hepatis, 446, 453, 472, 476, 480
  - uteri, 455, 511, 513, 535, 537
- thyreo-epiglotticum, 459
- transversum pelvis, 531, 532
- triangulare dextum (hepatis), 446, 447, 478
  - sinistrum (hepatis), 446, 447, 477
- umbilicale laterale, 533
  - medium, 496, 497, 520, 533
- venæ cavæ, 446, 447
- venosum [Arantii], 446
- ventriculare, 459
- vocale, 459

Line, axillary, 488 and App., note [49]
- mamillary, 486 and App., note [45], 488
- median, anterior, 486
  - posterior, 487
- oblique, of the thyroid cartilage, 458 and App., note [25]
- parasternal, 486 and App., note [47]
- scapular, 487 and note
- sternal, 486 and App., note [46]
- white, of the pelvic fascia, 497 and App., note [59]

Linea axillaris, 488
- mamillaris, 486, 488
- mediana anterior, 486
  - posterior, 487
- obliqua (cartilaginis thyreoideæ), 458
- parasternalis, 486
- scapularis, 487
- sternalis, 486

Lingua, 419-425

Lip of the cervix uteri, anterior, 511, 516
  - posterior, 511, 516
- of the glottis, 461 and App., note [33]
- of the ileocæcal valve, lower, 444 and note
  - upper, 444 and note
- lower, 412-415, 419
- marginal, of the cloacal orifice, 520 and App., note [93], 524
- upper, 412-414, 416, 417, 419

Lips, commissure of the, 419

Liver, 446-449, 456, 472, 476-478, 480, 482-486, 488, 495, 521, 522
- accessory, App., note [14]

Lobe or lobes:
- of the breast, 517
- of the bulb of the urethra, lateral, 507
- of the epididymis, App., note [72]
- of the external ear, 424
- Home's (of the prostate), App., note [73]
- of the liver, App., note [14]
  - caudate, 447, 478 and App., note [14]
  - left, 446, 447, 472, 476, 477, 480, 482, 484, 486, 495, 521 and App., note [14]
  - quadrate, 447, 478 and App., note [14]
  - right, 446, 447, 472, 476, 477, 480, 482, 483, 485, 486, 495, 522 and App., note [14]
  - Spigelian, 446, 447, 452, 477 and App., note [14]
- of the lung (inferior, middle, and superior), 464, 471, 483, 485, 487, 488
- of the placenta, 519
- of the prostate gland, lateral, 505
  - middle, 504 and App., note [73], 505
- of the thymus gland (right and left), 467
- of the thyroid body (right, left, and middle), 466, 467
- of the upper lip, median, 412, 419

Lobule or lobules:
- of the breast, 517
- of the external ear, 424
- glandular, 405
  - accessory, 405, 406
- of the kidney, 492
- of the liver, 448
- of the lung, 464, 476

Lobule or lobules:
of the testicle, 503
of the thyroid body, 466
Lobuli corticales (renis), 493
pars convoluta, 493
radiata, 493
epididymidis, 502, 503
glandulæ thyreoideæ, 466
hepatis, 448
mammæ, 517
pulmonis, 464, 476
testis, 503
Lobulus glandulæ, 405
Lobus *vel* lobi:
caudatus [Spigeli], 446, 447, 452, 477
(glandulæ), 405
glandulæ thyreoideæ (dexter, sinister), 466
hepatis (dexter, sinister), 446, 447, 472, 476, 477, 480, 482-486, 495, 521, 522
mammæ, 517
placentæ, 519
prostatæ (dexter, medius, sinister), 505
pulmonum (inferior, medius, superior), 464, 471, 483, 485, 487, 488
pyramidalis (glandulæ thyreoideæ), 466, 467
quadratus (hepatis), 447, 478
renales, 492
thymi (dexter, sinister), 467
Loculi of the placenta, 519
Loop, Henle's, 493 and App., note [54]
umbilical, of intestine, 451 and note, 521
Lungs, 463-465, 467, 471, 476-479, 482-488, 494
Luschka, cartilage of, 461 and App., note [33]
Luschka's tonsil, 411 and note, 434-436
Lymphatic glands, see "Glands, lymphatic"
Lymphoglandulæ bronchiales, 411, 471, 484
mediastinales (anteriores), 482, 484
pulmonales, 464
Lymphoid faucial ring, 411, note

M.

Macula flava (plicæ vocalis), 461 and App., note [33]
Mala, 412
Malpighi, pyramids of, 491, 492
Malpighian corpuscles of the kidney, 493
of the spleen, 450
of the Wolffian body, 520
Mamilla, 471, 486, 488, 517
Mamma, 471, 517
accessoria, 517
Margin of the nostril, 412
Margo anterior hepatis, 446, 462, 486
lienis, 450
pancreatis, 441
pulmonis, 464, 486
testis, 502, 503
inferior pulmonis, 464, 483, 485-488
lateralis linguæ, 419-421
renis, 490, 491
uteri, 512
liber (ovarii), 511, 537
medialis glandulæ suprarenalis, 492
renis, 490, 491
mesovaricus, 511
nasi, 412
posterior lienis, 450
pancreatis, 441
testis, 502
superior glandulæ suprarenalis, 492
pancreatis, 441
Meatus, external auditory, cartilage of, 436
nasal, nasopharyngeal part, App., note [4]
nasopharyngeal, 436 and App., note [4]
nasopharyngeus, 436
Mediastinum, see also "Cavity, mediastinal," footnote to p. 410 and App., note [24]
anterior, 410, note, 456, 471, 476 and App., note [24]
middle, 410, note, 478, 482 and App., note [24]
Mediastinum, posterior, 410 and note, 456, 470, 471, 478, 483 and App., note [24]
superior, 410, note, 470, 476, 478, 479, 482, 483 and App., note [24]
testis, 503
Medulla of the kidney, 491, 493
blood-supply, App., note [56]
of the suprarenal capsule, 492
Medullary rays of the cortex of the kidney, 493
Membranæ deciduæ (basalis, capsularis, vera), 518, 519
Membrana granulosa, 512
hyothreoidea, 433, 459, 460, 462
† propria (glandulæ), 405
Membrane, basement, 404, 405
cricothyroid, 459 and App., note [30], 460, 462, 466
cricotracheal, 459, 462
elastic, of the larynx, 459 and App., note [30]
of the trachea, App., note [30]
mucous, 404, 406, 407
pericemental, 426, note
peri-odontal, 426, note
thyrohyoid, 433, 459, 460, 462
Mentum, 412
Mercier's bar, 498 and App., note [61]
Mesenteriolum processus vermiformis, 455, 475
Mesenterium, 408, 451-456, 474, 475, 481, 512, 521, 536
commune, 451; var., 453
primitivum, 468
Mesentery, 408, 451, 452, 453 and note, 454-456, 474, 475, 481, 512, 521, 536
common, 451; var., 453
primitive, 468
Meso-appendix, 455, 475
Mesocolon, 443, 451, 474, 475
ascending (ascendens), 451, 453, 475 and App., note [34], 522, 536
descending (descendens), 451, 453 and note, 454, 455, 474, 479, 481, 536
sigmoid (sigmoideum), 453, 455, 474, 534-537
transverse (transversum), 451, 454, 456, 474, 475, 477-479, 481
†Mesoduodenum, 451, 453
Mesogastrium, 451, 452, 456, 468, 479
Mesometrium, 512 and App., note [82], 513, 535, 537
Mesonephros, 468, 520, 521
Mesorchium, 522
Mesorectum, 455, 536, 537
Mesosalpinx, 510, 511, 512 and App., note [82], 513, 537
Mesovarium, 511, 512 and App., note [82], 537
Mid-kidney, 468, 520, 521
Milk-teeth, 427, 428, 431
Mitral orifice, 471
Mons pubis, 514, 516
veneris, 514, 516
Montgomery's glands, 517
Morgagni, body of, 502, note
frænum of, 444, note
hydatid of, 500, 502 and App., note [69], 512, 520, 521
Morsus diaboli, App., note [80]
Mouth, 414-423
cavity of, 411, 414-423
Mucous glands of the biliary ducts, 448 and note
Müllerian duct, 520, 521
Muscle or muscles:
arymembranaceus, 460
aryteno-epiglottideus, 460
arytenoideus (proprius), 460, 461
arytenovocalis, 460 and note, 461
azygos pharyngis, 432, note
uvulæ, 418 and note, 435
Bell's, App., note [61]
broncho-œsophageus, 470 and App , note [35]
buccinator, 413-415, 417, 424, 433
buccopharyngeus, 433 and note
bulbocavernosus, 527-529, 532
ceratocricoid, 460
ceratopharyngeus, 433 and note
chondroglossus, 420
chrondropharyngeus, 420, 433 and note
circumflexus palati, 410, 417, 418, 433, 435, 436

Muscle or muscles:
- coccygeus, 528-530, 538
- compressor urethræ, 527 and note, 528, 531, 532 and App., notes [99], [101], and [104]
- constrictor isthmi faucium, 417 and note
  - of the pharynx, inferior, 432, 433 and note
    - middle, 432, 433 and note
    - superior, 415, 417, 418, 432, 433 and note, 435, 436
  - urethræ, 527 and note, 528, 531, 532 and App., notes [99], [101], and [104]
- cremaster, 501, 523
  - internus, 501
- crico-arytenoid, lateral, 460
  - posterior, 460
- cricopharyngeus, 433 and note
- cricothyroid, 433 and note, 460
- ejaculator urinæ, 527, 532
- erector clitoridis, 529
  - penis, 527, 528, 532, 533
- genioglossus, 414, 420, 421, 425
- geniohyoglossus, 414, 420, 421, 425
- glossopharyngeus, 433 and note
- Guthrie's, App., note [101]
- hyoglossus, 410, 420, 421, 425, 433
- ischiocavernosus, 527-529, 532, 533
- ischiococcygeus, 529, note
- levator ani, 445, 497, 513, 519, 527-530, 532, 535, 538
  - parts of, 529, note
  - coccygis, 528-530, 538
  - corporis thyroideæ, 466
  - palati, 410, 417, 418, 433, 435, 436
- lingual, superficial, 420-422
- lingualis, inferior, 420, 421
  - superior, 420-422
- longitudinal, of the tongue, inferior, 420, 421
  - superior, 420-422
- mastopharyngeus, 432, note
- motor uvulæ, 418 and note, 435
- mylopharyngeus, 433 and note
- obturatococcygeus, 529, note
- obturator internus, 497, 529, 530, 532, 533, 538
- occipitopharyngeus, 432, note
- orbicularis oris, 413
- palatoglossus, 417 and note
- palatopharyngeus, 417 and note, 418, 435
- of the perineum, 526-531 and App., notes [99], [101], [104]
- petropharyngeus, 432 and note
  - externus, 432, note
- of the pharynx, 410, 415, 417, 418, 432 and note, 433 and note, 435, 436, 440
  - subdivisions of the constrictors, 533, note
  - supernumerary elevators, 432, note
- pleuro-œsophageus, 470 and App., note [35]
- portio aryvocalis musculi thyro-arytenoidei, 461, note
- pterygopharyngeus, 433 and note
- pubococcygeus, 529, note
- pubovesical, 497 and App., note [60]
- rectococcygeus, 530 and App., note [97]
- retractor uteri, 535 and note
- salpingopharyngeus, 435 and note
- sphenopharyngeus, 432 note
- sphincter of the anus, external or superficial, 445, 497, 526-530, 534, 535, 538
    - internal, deep or circular, 445, 538 and note
    - third, 445
  - of the bladder, 498 and App., note [82], 506
  - of the membranous urethra, 532 and App., note [104]
  - pylori, 438, 439
  - vaginæ, 529
- styloglossus, 410, 415, 417, 421, 425, 432, 433
- stylopharyngeus, 410, 415, 432, 433, 435, 436, 440
- suspensory, of the duodenum, 494
- tensor palati, 410, 417, 418, 433, 435, 436

Muscle or muscles:
- thyro-arytenoid (external), 460, 461
  - portio aryvocalis (Ludwig), 460, note
  - superior, 460
- thyro-epiglottideus, 460
- thyropharyngeus, 433 and note
- of the tongue, longitudinal, inferior, 420, 421
    - superior, 420-422
  - superficial, 420-422
  - transverse, 420, 421
  - vertical, 421, 422
- transverse, of the tongue, 420, 421
- transversalis linguæ, 420, 421
- transversus perinei profundus, 527 and note, 528, 531, 532 and App., notes [99], [101], and [104]
  - (superficialis), 527 and note, 529, 532
- Wilson's, App., note [101]

Muscular coat of the bladder, see "Coat, muscular"

Muscularis mucosæ, 406, 407

Musculi perinei, 526-531 and App., notes [99], [101], and [104]

Musculus aryepiglotticus, 460
- † arymembranaceus, 460
- arytænoideus obliquus, 460, 461
  - transversus, 460, 461
- broncho-œsophageus, 470
- buccinator, 413-415, 417, 424, 433
- buccopharyngeus, 433
- bulbocavernosus, 527-529, 532
- ceratocricoideus, 460
- ceratopharyngeus, 433
- chondroglossus, 420
- chondropharyngeus, 420, 433
- coccygeus, 528-530, 538
- constrictor pharyngis inferior, 432, 433
  - medius, 432, 433
  - superior, 415, 417, 418, 432, 433, 435, 436
- cremaster, 501, 523
  - internus, 501
- crico-arytænoideus lateralis, 460
  - posterior, 460
- cricopharyngeus, 433
- cricothyreoideus, 433, 460
- genioglossus, 414, 420, 421, 425
- glossopalatinus, 417
- glossopharyngeus, 433
- hyoglossus, 410, 420, 421, 425, 433
- ischiocavernosus, 527-529, 532, 533
- levator ani, 445, 497, 513, 519, 527-530, 532, 535, 538
  - glandulæ thyreoideæ, 466
  - veli palatini, 410, 417, 418, 433, 435, 436
- longitudinalis inferior (linguæ), 420, 421
  - superior (linguæ), 420-422
- mylopharyngeus, 433
- obturator internus, 529, 530, 532, 533, 538
- orbicularis oris, 413
- pharyngopalatinus, 417, 418, 435
- pleuro-œsophageus, 470
- prostaticus, 505 and note
- pterygopharyngeus, 433
- pubovesicalis, 497
- rectococcygeus, 530
- recto-uterinus, 535
- salpingopharyngeus, 435
- sphincter ani externus, 445, 497, 526-530, 534, 535, 538
    - internus, 445, 538
    - † tertius, 445
  - pylori, 438, 439
  - urethræ membranaceæ, 532
- styloglossus, 410, 415, 417, 421, 425, 432, 433
- stylopharyngeus, 410, 415, 432, 433, 435, 436, 440
- suspensorius duodeni, 494
- tensor veli palatini, 410, 417, 418, 433, 435, 436
- thyreo-arytænoideus (externus), 460, 461
  - † superior, 460
- thyreo-epiglotticus, 460
- thyreopharyngeus, 433, 466

Musculus, transversus linguæ, 420, 421
            perinei profundus, 527, 528, 531, 532
                superficialis, 527, 529, 532
      uvulæ, 418, 435
      verticalis (linguæ), 421, 422
      vocalis, 460, 461

N.

Nares, anterior, 412
      posterior, 434, 435
Nasopalatine canal, see "Canal"
Nasopharynx, 411, 434, 436
            lateral wall, anatomy of, App., note [4]
Navel, the, see "Umbilicus"
Neck of the bladder, 496 and App., note [58]
    of the gall-bladder, 449
    of the glans penis, 508
    of the pancreas, 441
    of tooth, 426, 430
    of the uterus, 510-513, 518
            divisions of, 511 and App,, note [75]
Nerve, dental, inferior, 410, 425
      dorsal, of the clitoris, 531
            of the penis, 531
      hypoglossal, 421, 425
      inferior dental, 410, 425
      laryngeal, inferior, 470
            recurrent, 470, note
            superior, fold of, 434 and note, 461
      lingual, 410, 414, 421, 424, 425
      obturator, 533
      pneumogastric, 470
      vagus, 470
Nerves, suprarenal, 492
Nervus alveolaris inferior, 410, 425
      dorsalis clitoridis, 531
            penis, 531
      hypoglossus, 421, 425
      laryngeus inferior, 470
      lingualis, 410, 414, 421, 424, 425
      obturatorius, 533
      vagus, 470
Nipple, 471, 486, 488, 517
Noduli lymphatici aggregati [Peyeri], 442
            lienales [Malpighii], 450
            solitarii, 407, 440, 442, 443, 445
Nose, base of, 412
    bridge of, 412, note
    root of, 412
    septum of, 414
            cartilaginous, 411
    tip of, 412
Nostrils, 412
Notch, cardiac, of the lung, 464
      great median, of the thyroid cartilage, 458, note
      interarytenoid, 461
      of the pancreas, 441
      thyroid, 458
      umbilical, of the liver, 446, 447
Notochord, 468
Nuhn's gland, 420 and note, 421
Nymphæ, 510, 514-516, 524, 529

O.

Œsophagus, 408, 411, 433, 434, 456, 461, 470, 471, 478, 479, 487
      pars abdominalis, 438, 479, 494
            cervicalis, 411, 470
            thoracalis, 411, 470, 478, 479
Omenta, App., note [13]
Omental sac, see "Sac, omental"
      tuberosity of the liver, 446, 447, 478
            of the pancreas, 478, 479
Omentum, cavity of, see "Sac, omental"
      gastrocolic, see "Omentum, great"
      gastrohepatic, see "Omentum, small"
      gastrosplenic, 450, 477, 479, 480, 495
      great, 456, 472-477, 481
Omentum, great, anterior layer, 456, 472, 486-488
            free portion, 472-477
            posterior layer, 456, 473-477
      hepatocolic, 477 and App., note [42]
• hepatoduodenal, 477 and App., note [42], 478-480
      lesser, see "Omentum, small"
      majus, 456, 472-477, 481
† lamina anterior, 456, 472, 486-488
†   posterior, 456, 473-477
† pars libera, 472-477
      minus, 452, 456, 477, 480, 495, 522
† pars condensa, 477
†   flaccida, 477
      sac of, see "Sac, omental"
      small, 452, 456, 477 and App., note [42], 480, 495, 522
            thick portion, 477 and App., note [42]
            thin portion, 477 and App., note [42]
Opening, mesomental, 479 and App., note [44]
Organ of Giraldès, 500, 502, 503, 520
    of Rosenmüller, 500, 512, 513, 520, 521
Organa genitalia muliebria, 509-524
            virilia, 499-508
      uropoëtica, 489-498
Organs, digestive, 409-456
      genito-urinary, 489-524
      reproductive, female, 509-524
            male, 499-508
      respiratory, 457-467
      urinary, 489-498
      urogenital, 489-524
Orifice, cloacal, 520 and App., note [84], 524
      Eustachian, cushion of, 434, 436
      of the Eustachian tube, pharyngeal, 411, 436
      of the Fallopian tube, abdominal, 500, 511, 512
            uterine, 500, 512
      mitral, 471
      of the pulp-canal, 426, 427
      tricuspid, 471
      of the ureter (vesical), 498
      of the urethra, external, in the female, 498, 510, 514-516, 529, 531
            in the male, 506-508, 524
            internal, 496, 498, 511, 533
      vaginal, 514, 515, 529, 531
      of the vermiform appendix, 444
Orifices of the uriniferous tubules, 492 and App., note [51]
Orificium externum uteri, 500, 511, 512, 516, 518
      internum uteri, 511, 512, 518
      ureteris, 498
      urethræ externum (muliebris), 498, 510, 514-516, 529, 531
            (virilis), 506-508, 524
            internum, 496, 498, 511, 533
      vaginæ, 514, 515, 529, 531
Os tincæ, App., note [67]
Os uteri, App., note [67]
      externum, 500 and App., note [67], 511, 512, 516, 518
      internum, 511 and note, 512, 518
Ostium abdominale tubæ uterinæ, 500, 511, 512
      pharyngeum tubæ auditivæ, 411, 436
      uteri, 511 and note
      uterinum tubæ uterinæ, 500, 512
      venosum dextrum, 471
            sinistrum, 471
Ovarium, 453, 500, 510-512, 518, 520, 535, 537
Ovary, 453, 500, 510-512, 518, 520, 535, 537
      position of, App., note [77]
Oviduct, see "Tube, Fallopian"
Ovulum, 512
Ovum, 512

P.

Pad, incisive, 416 and note, 417
      sucking, 414, note
Palate, hard, 410, 411, 414, 416, 419, 425, 436
      soft, 411, 416, 434-436
Palatum durum, 410, 411, 414, 416, 419, 425, 436
      molle, 416

Pancreas, 441, 451, 452, 456, 468, 478-480, 484, 495
  accessorium, 441
  lesser, 441, note
  rudiment of, 468
  Winslowi, 441
  of Winslow, 441 and note
Papilla or papillæ:
  circumvallate, 416, 419, 421, 423
  conicæ (linguæ), 419, 422
  conical (of tongue), 419, 422
  duodenal, 440
  duodeni (Santorini), 440
  filiform, 419, 422
  filiformes, 419, 422
  foliate, 419
  foliatæ, 419
  fungiform, 419, 422
  fungiformes, 419, 422
  incisiva, 416, 417
  lenticular, 419, 423
  lenticulares, 419, 423
  mammæ, 471, 486, 488, 517
  of mucous membrane, 404
  palatine, 416 and note, 417
  renal, 491-493
  renales, 491-493
  submaxillary, 419, 424
  vallatæ, 416, 419, 421, 423
Paradidymis, 500, 502, 503, 520
Parametric connective-tissue, 513 and App., note [84], 535
•Parametrium, 513 and App., note [84], 535
Paries membranaceus tracheæ, 459, 461, 465
Paroophoron, 500, 520, 521
Parotid gland, retromandibular process of, 415, 425
Parovarium, 500, 512, 513, 520, 521
Part, nasopharyngeal, of nasal meatus, App., note [4]
Partes genitales externæ (muliebres), 514, 515
Passages, alveolar, 465
Patches, Peyer's, 442
Pavilion of the Fallopian tube, 500, and see also "Infundibulum of the Fallopian tube" and "Orifice, abdominal, of the Fallopian tube"
Pectiniform septum of the penis, 506, 508
Pelvic fascia, tendinous arch of, 497 and App., note [59], 532, 533
  white line of, 497 and App., note [59], 532, 533
Pelvis of the kidney, 490-492
  renalis, 490-492
Penis, 501, 506-508, 520, 522-524, 534
Pericardium, 410, 411, 456, 470, 471, 477, 482, 484, 528
Periglottis, 420 and App., note [2], also App., note [31]
Perimetrium, 535 and note
Perineal region, 526
Perineum, 510, 514, 524, 534
  obstetrical, 510, 514
Periosteum, alveolar, 426 and note
  dental, 426 and note
Peritonæum, see "Peritoneum"
Peritoneal folds, ligaments and omenta, App., note [18]
  fossæ and pouches, App., note [21]
Peritoneum, 451-456, 500
  parietal, 408, 452-456, 472, 473, 478-481, 483-485, 494, 495, 513, 522, 523, 533-538
•   primary, 408, 453, 456
•   secondary, 408
  visceral, 408, 445, 456, 511, 533-535
Petiolus epiglottidis, 458
Peyer's patches, 442
Pharynx, 432-436
  arched summit of, 411, 436
  laryngeal part, 411, 434, 470
  nasal part, 411, 434, 435
  oral part, 411, 434
† paries dorsalis, 436
†   lateralis, 436
  pars laryngea, 411, 434, 470
    nasalis, 411, 434, 436
    oralis, 411, 434
  wall, lateral, 436
    posterior, 436
Philtrum, 412
Pillar of the fauces, anterior, 415-419, 421
  posterior, 415-418, 434, 436
Pillars, see "Crura"
  of diaphragm, 470 and App., note [37]
Pinna, 424
Placenta, 518, 519
  fœtal (fœtalis), 519
  maternal, 519
  uterine (uterina), 519
Placental sinuses, 519
Plate of the cricoid cartilage, 458
Pleura, 477, 482-484, 487, 488
  cervical, 467 and note, 470, 476-479, 483, 485, 487, 488
  costalis, 467, 470, 471, 477-479, 482-487
  diaphragmatica, 476, 477, 479, 484, 485, 494
  mediastinalis, 470, 471, 478, 482
  parietalis, 479, 484
  pericardiaca, 471, 476, 477, 494
  pulmonalis, 464, 477, 478, 484
Plexus, capillary, of renal cortex, 493
    medulla, 493
  œsophageus (posterior nervi vagi), 470
  pampiniformis, 501-503, 522, 523, 533
† (venosus) ovaricus, 512, 513
    pudendalis, 532 and App., note [105], 533
    uterovaginalis, 512, 513
  venous, ovarian, 512, 513
    pampiniform, 501-503, 512, 513, 522, 523, 533
    prostatic, App., notes [74] and [105]
    spermatic, 501-503, 522, 523, 533
    uterine, 512, 513 and App., notes [81] and [105]
    uterovaginal, 512, 513 and App., notes [81] and [103]
    vaginal, 512, 513 and App., notes [81] and [105]
    vesical, App., note [105]
  of venous radicles surrounding the orifices of the ducts of Bellini, 493
Plica *vel* plicæ:
  adiposæ (pleuræ), 476, 494
  aryepiglottica, 461
  cæcalis, 455
  circulares [Kerkringi], 440, 442
  duodenojejunalis, 454, 474
  duodenomesocolica, 454, 474
  epigastrica, 536, 537
  fimbriata, 419, 421
  gastropancreatica, 479
  glosso-epiglottica lateralis, 419, 461
    mediana, 419
  gubernatrix, 521 and App., note [96]
  ileocæcalis, 455
  longitudinalis duodeni, 440
  mucosæ ventriculi, 438
  nervi laryngei, 434, 461
  palatinæ transversæ, 416, 417
  palmatæ, 512
† pharyngo-epiglottica, 415, 434, 435, 461
  recto-uterina [Douglasi], 510, 511, 535, 537
† rectovesicalis, 536
  salpingopalatina, 436
  salpingopharyngea, 434, 436
  semilunares coli, 443, 444
  serosa, 455
  sublingualis, 414, 419, 424
  transversalis recti, 445, 538
  triangularis, 416, 419
  tubariæ (ampullares), 512, 513
  tunicæ mucosæ vesicæ felleæ, 449
  umbilicalis lateralis, 472, 494, 522, 536, 537
    media, 472, 494, 536, 537
  ureterica, 498
  ventricularis (laryngis), 461
  vesicalis transversa, 535-537
  villosæ of the pleura, 476, 494
  vocalis, 459, 461
Ponticulus hepatis, 446 and App., note [17], 447
Porta hepatis, 447
Portal vein, 446, 480
Portio aryvocalis musculi thyro-arytenoidei, 460, note

Portio supravaginalis (cervicis), 511, 516
vaginalis (cervicis), 510, 511, 516
Portion of the cervix uteri, infravaginal, App., note [75]
intermediate, App., note [75]
supravaginal, 511 and App., note [75], 516
vaginal, 510, 511 and App., note [75], 516
Post-nasal space, 411, 434, 436
Post-trigonal pouch, 498 and App., note [61]
Pouch or pouches:
of the colon, 443
of Douglas, 510, note, 511, 513, 535, 537
inguinal, external, 536
internal, 536
middle, 536, note
supravesical, 536
laryngeal, 460, 461
omental, see "Sac, omental"
peritoneal, 454, note; and see "Fossa, peritoneal"
post-trigonal, App., note [61]
rectovaginal, 510, note, 511, 513, 535, 537
rectovesical, 456, 534
retrocæcal, 455
splenic, 477 and App., note [41], 483
uterovesical, 511, 535, 537
Præputium clitoridis, 498, 514-516
penis, 508, 524
Prepuce of the clitoris, 498, 514-516
of the penis, 508, 524
Process, muscular, of the arytenoid cartilage, 458 and App., note [21]
retromandibular, of the parotid gland, 415, 425
uncinate, of the pancreas, 441 and note
vaginal, of the peritoneum, 455, 522, 523
vocal, of the arytenoid cartilage, 458 and App., note [28], 459
Processus caudatus (lobi Spigeli), 447, 478
Ferreini, 493
muscularis (cartilaginis arytænoideæ), 458
papillaris (lobi Spigeli), 447
retromandibularis (glandulæ parotidis), 415, 425
uncinatus (pancreatis), 441
vaginalis peritonæi, 455, 522, 523
vermiformis, 444, 455, 474, 475, 537
vocalis (cartil. arytænoideæ), 458, 459
Prominence, laryngeal, 411
levator, 436 and App., note [4]
Prominentia laryngea, 411
Prostata, 445, 497, 498, 500, 504-506, 532-534
Prostate, the, 445, 497, 498, 500, 504-506, 532-534
Pseudarteriæ rectæ, 493 and App., note [50]
Pubes, 514
Pudendum muliebre, 514
Pulmo (dexter, sinister), 463-465, 467, 471, 476-479, 482-488, 494
Pulpa dentis, 426
lienis, 450
Pulp-canal, 426, 427
Pulp-cavity, 426, 427
Pulp, dental, 426
of the spleen, 450
Pulvinar of the epiglottis, 461
Pyloric region, 439
Pylorus, 438-441, 482, 486, 487
Pyramid of the thyroid body, 466, 467
Pyramides renales, 491, 492
Pyramids of Ferrein, 493
of Malpighi (renal), 491, 492

R.

Radix (radices) dentis, 426, 430
linguæ, 411, 419, 434, 435, 471
mesenterii, 454, 474, 475, 522, 536
nasi, 412
penis, 507, 526
pulmonis, 464, 465
Rami bronchiales (eparterialis, hyparteriales), 462, 465, 483, 484
pulmonum (†dorsales, †medialis, †ventrales), 462, 463
ductus hepatici, 448
lienales (arteriæ lienalis), 440
Ramification, bronchial, 462, 463
Raphe of the palate, 416
of the penis, 524
of the perineum, 524
of the pharynx, 432
pterygomandibularis, 417, 433
scroti, 501, 524, 527
of the tongue, median, 419
Rays, medullary, of cortex of kidney, 493
Receptaculum chyli, 494
Recess, see "Fossa" and "Pouch"
of the pharynx, lateral, 434, 436
mesial, 434 and note, 436
pyriform (pyriform sinus), 434 and note, 461
Recesses, urethral, 506
Recessus duodenojejunalis, 454, 474
ileocæcalis inferior, 455
superior, 475
inferior omentalis, 476
intersigmoideus, 455, 522
lienalis (bursæ omentalis), 479
paracolici, 455
pharyngeus [Rosenmuelleri], 434, 436
phrenicohepaticus, 454
piriformis, 434, 461
retrocæcales, 455
superior omentalis, 479
Rectum, 445, 456, 475, 486-488, 513, 530, 533-538
anal portion, 445, 538
Recurrent straight branches of arterial arches of kidney, App., note [56]
Regio perinealis, 526
pylorica, 439
trigoni vesicæ, 496
Region, perineal, 526
pyloric, 439
Ren, 408, 479-481, 483-485, 487, 488, 490-495, 521
Reproductive organs, female, 509-524
male, 499-508
Respiratory organs, 457-467
Rete testis [Halleri], 503, 520
vasculosum testis, 503, 520
Reticular framework of the spleen, 450
Retinacula of the ileocæcal valve, 444, note
Retzius, cavity of, 456, 534
Ridge of the palate, median longitudinal, 416
of the pyloric ring, 438 and App., note [8]
urethral, 514, 516
Ridges of the mucous membrane of the gall-bladder, 449
Rima glottidis, 459, 461
pars intercartilaginea, 461
intermembranacea, 461
oris, 411, 412
pudendi, 514
urogenitalis, 514
vestibuli, 461
Ring, abdominal, deep, 533
external, 501
internal, 533
superficial, 501
of the cricoid cartilage, 458
hæmorrhoidal, 445 and App., note [12], 538
lymphoid, faucial, 411, note
urethral, 498 and App., note [62], 506
Rivini, duct of, 424, note
Rivinus, duct of, App., note [3]
Root of the lung, 464, 465
of the mesentery, 454, 474, 475, 522, 536
of the nose, 412
of the penis, 507, 526
of the tongue, 411, 419, 434, 435, 471
of tooth, 426, 430

Rosenmüller, fossa of, 434, 436
organ of, 500, 512, 513, 520, 521
Rudiment of the cæcum, 451
of the gall-bladder, 468
of the genital gland, 520
of the kidney, 520
of the lung, 468
of the pancreas, 468
of the reproductive gland, 520
of the scrotum, 520
of the spleen, 468
of the ureter, 468 (see Erratum, p. 552*g*)
of the uterus, 520
of the vagina, 520
of the vaginal process of the peritoneum (canal of Nuck), 455
Rudimentum processus vaginalis, 455
Rugæ of the bladder, 498
of the duodenum, transverse, 440
of the hard palate, 416, 417
of the mucous membrane of the stomach, 438
of the small intestine, 440, 442
of the vagina, transverse, 516
vaginales, 516

S.

Sac, omental, 452, 456, 468, 476-478, 479 and App., note [44], 480, 484, 495
divisions of, App., note [44]
lesser, App., note [44]
splenic fossa of, App., note [44]
superior fossa of, App., note [44]
vestibule of, 452, 479, App., note [44], 495
yolk, 468, 518
Saccule, laryngeal, 460, 461
Saccules of the ampulla of the vas deferens, 504
of the colon, 443
Saccus lienalis, 477, 483
Sacs, dental, 431
Santorini, cartilages of, 458
duct of, 440-442
Scrotum, 500, 501, 520, 522-524, 526, 527, 534
Segment of the ileocæcal valve, lower, 444 and note
upper, 444 and note
Seminal vesicle, 496, 497, 500, 504-506, 520, 532, 534
Septa of the testicle, 503
Septula testis, 503
Septum atriorum, 471
bulbi urethræ, 533
glandis, 508
of the glans penis, 508
interauricular, 471
interventricular, 471, 484
linguæ, 420, 421
mobile nasi, 411
nasi, 414
cartilagineum, 411
of the nose, 414
cartilaginous, 411
pectiniforme, 506, 508
penis, 506, 508
scroti, 501, 523, 526
of the tongue, 420, 421
ventriculorum, 471, 484
Sinus or sinuses:
costomediastinalis, 471
epididymidis, 502, 503
of the galactophorous ducts, 517
glosso-epiglottic, 419, 461
of the kidney, 491, 492
lactiferi, 517
of the larynx, 461
maxillaris (Highmori), 414
maxillary, 414
phrenicocostalis, 470, 479, 480, 482-485
placental, 519
pocularis, 498, 500, 504-506, 520
prostatic, 498, 500, 504-506, 520
pyriform, 434, 461
Sinus or sinuses:
rectales, 445
of the rectum, 445 and App., note [12]
renalis, 491, 492
sphenoidalis, 436
tonsillaris, 415, 418, 419
urogenitalis, 520, 524
of Valsalva, App., note [38]
Skene's glands, 514 and App., note [88], 516
tubules, 514 and App., note [88], 516
Socket of tooth, 426
Space, Burns's, 410, note
mediastinal, see "Mediastinum," footnote to p. 410, and App., note [24]
pleural, supplemental, costomediastinal, 471 and App., note [36]
mediastinodiaphragmatic, App., note [36]
phrenocostal, 470 and App., note [36], 479, 480, 482-485
pericardiophrenic, App., note [36]
pericardiosternal, 471 and App., note [36]
post-nasal, 411, 434, 436
preperitoneal, 456, 534
retroperitoneal, 408, 456, 480, 481, 494, 495, 534
Spatium interaponeuroticum suprasternale, 410, note
† præperitonæale [Retzii], 456, 534
retroperitonæale, 408, 456, 480, 481, 494, 495, 534
Spermatic cord, 501, 502, 523
Sphincter of the anus, external or superficial, 445, 497, 526-530, 534, 535, 538
internal, deep, or circular, 445, 538
third, 445
of the pylorus, 438, 439
vesicæ, 498 and App., note [62], 506
vesicæ externus, App., note [62]
internus, App., note [62], 506
Spiral valve of the cystic duct, 449
Splanchnologia, 401 *et seq.*
Splanchnology, 401 *et seq.*
general considerations, 404-408
Spleen, 450-453, 477, 479, 480, 482-484, 486, 487, 495, 522
accessory, 450
descriptive anatomy of, App., note [19]
Stensen's canal, 416 and note
duct, 413, 416, 424, 425
Stomach, 438, 439, 451, 452, 456, 476-478, 480, 482-484, 486, 487, 495, 514
body, 438, 480, 482, 484
cardiac portion, 438
curvature, great, 438, 450, 476, 478, 486
small, 438, 439
fundus, 438, 477, 483, 484, 486
great cul-de-sac, 438, 477, 483, 484, 486
pyloric antrum, 438
portion, 438-440, 477, 482
small cul-de-sac, 438
wall, anterior, 438, 472
posterior, 478, 483
†Stratum circulare (tunicæ muscularis), 407, 452
granulosum (folliculi oophori), 512
longitudinale inferius linguæ, 421, note
superius linguæ, 421, note
† tunicæ muscularis, 407, 452
perpendiculare linguæ, 421, note
submucous fibrous, of the tongue, 420-423
transversum linguæ, 421, note
Striated border, 404
Stroma ovarii, 512
Substance, glandular, of the prostate gland, 505
Substantia adamantina, 426, 427
corticalis glandulæ suprarenalis, 492
renis, 491-493
eburnea, 426, 427
medullaris glandulæ suprarenalis, 492
renis, 491, 493
ossea (dentis), 426

Sucking-pad, 414 and note
Sulcus, alar, 412, note
† aorticus (pulmonis), 464
† dorsalis penis, 507
medianus (linguæ), 419
mentolabial, 412
nasal posterior, App., note [4]
nasolabial, 412
œsophageal, 447, note
subclavius (pulmonis), 464
terminalis linguæ, 419
Summit of the bladder, 494, 496, 534, 536, 537
of the pharynx, arched, 411, 436
Suprarenal body, 483, 492, 494, 495, 521
Surface of the arytenoid cartilage, articular, 458 and App., note [28]
of the kidney, anterior, 490
posterior, 490
of the liver, inferior, 446, 447
posterior, 446, 447
superior, 446
of the lung, costal, 464, 486
diaphragmatic, 464
inner, 463, 464
lower, 464
mediastinal, 463, 464
outer, 464, 486
phrenic, 464
of the ovary, external, 511
internal, 511, 537
of the pancreas, anterior, 441
inferior, 441
posterior, 441
of the placenta, external, 519
fœtal, 519
internal, 519
maternal, 519
uterine, 519
of the prostate gland, anterior, 505
basal, 496, 505
posterior, 505, 506, 532
pubic, 505
rectal, 505, 506, 532
vesical, 496, 505
of the spleen, basal, App., note [19]
gastric, 450, 479
phrenic, 450
renal, 450
of the suprarenal capsule, anterior, 492
posterior, 492 and App., note [52]
of teeth, buccal, 428-430
of contact, 430
labial, 430
lingual, 428, 430
masticatory, 428, 429
posterior (premolar and molar), 428, 429
of the testicle, external, 502, 521
internal, 502
of the tongue, inferior, 419-421
superior, 411, 416, 417, 419
of the uterus, anterior, 511, 537
intestinal, 511, 513, 535
posterior, 511, 513, 535
vesical, 511, 537
Sustentaculum lienis, 474, note, App., note [41]
†Syndesmosis arycorniculata, 459
corniculo-arytenoid, 459 and App., note [28]

T.

Tænia libera, 443, 444, 473, 474
mesocolica, 443, 444
omentalis, 444, 473, 478
Tæniæ coli, 443, 444
Tail of epididymis, 502, 503, 521, 522
of the pancreas, 441, 480, 483
rudimental, 524
Taste-buds, 423
Teeth, 426-431
Teeth, absorption of temporary, 428
bicuspid, 427, 429-431
canine, 426-431
deciduous, 427, 428, 431
developmental stages, 431
grinders, 427-431
incisor, 426-431
lower, 427
milk, 427, 428, 431
molar, 427-431
multicuspid, 427-431
permanent, 427-431
premolar, 427, 429-431
temporary, 427, 428, 431
upper, 427
wisdom, 429, 430
Tela subcutanea, 508
submucosa, 405-407
subserosa, 407
Tendinous intersection between the cricothyroid muscle and the inferior constrictor of the pharynx, 433 and note
Tendon, central, cordiform, or trefoil, of the diaphragm, 446, 485
Testicle, 456, 500-507, 520-523
appendix of, 500, 502 and App., note [60], 520, 521
descent of, 522, 523
Testis, 456, 500-507, 520-523
Theca folliculi, 512
Thoracic viscera, projection-outlines of, 486-488
Thymus (gland), 410, 411, 456, 466, 467, 476
Thyroid body, 408, 411, 434, 466, 467, 470
Tip of the coccyx, 529 and note
of the nose, 412
of the tongue, 415, 419, 420
Tissue, areolar, of mucous membrane, 404-407, 422, 423
submucous, 405-407
subserous, 407
erectile, of the female urethra, 535 and App., note [108]
subcutaneous areolar, of the penis, 508
Tongue, 419-425
body of the, 414, 419
edge of the, 419-421
lower surface of the, 419-421
root of the, 411, 419, 434, 435, 471
upper surface of the, 411, 416, 417, 419
Tonsil (amygdala), 411, note, 434-436
lingual, 411, note, 416 and note, 419
Luschka's, 411 and note, 434-436
palatine, 411 and note, 434-436
pharyngeal, 411 and note, 434-436
Tonsilla lingualis, 416, 419
palatina, 415-419, 424, 434-436
pharyngea, 411, 434-436
Tooth, see "Teeth"
Topographical anatomy, see "Anatomy, topographical"
Torus tubarius, 434, 436
Trabeculæ lienis, 450
of the spleen, 450
Trachea, 408, 411, 433, 456, 462, 463, 465-471, 478, 479
bifurcation of, 411, 462
Tricuspid orifice, 471
Trigone of the bladder, 496, 498 and App., note [61]
boundaries of, 498 and App., note [61]
Trigonum vesicæ [Lieutaudi], 498
Tuba uterina [Falloppii], 455, 500, 510-513, 518, 520, 521, 535, 537
pars uterina, 512
Tube, Eustachian, 410, 411, 434-436
bony portion of, 435
membranous portion of, 433, 436
Fallopian, 455, 500, 510-513, 518, 520, 521, 535, 537
uterine portion, 512
subtracheal, App., note [1]
Tuber omentale hepatis, 446, 447, 478
pancreatis, 478, 479
papillare, 447
Tubercle of the epiglottis, 461
genital, 520, 521, 524

Tubercle of the thyroid cartilage, inferior, 458
superior, 458
of the upper lip, median, 412, 419
Tubercles of the crown of the teeth, 427-429
Tubercula (coronæ) dentis, 427-429
Tuberculum corniculatum [Santorini], 461
cuneiforme [Wrisbergi], 460, 461
epiglotticum, 461
labii superioris, 412, 419
thyreoideum inferius, 458
superius, 458
Tuberosity, omental, of the liver, 446, 447, 478
of the pancreas, 478, 479
Tubule or tubules:
of the epoophoron, longitudinal (duct of Gartner), 512, 520, 521
transverse, 512
of the kidney, 492, 493
ascending (of Henle), 493 and App., note [54]
collecting, 493 and App., note [55]
convoluted, first, 493
second, 493 and App., note [53]
descending (of Henle), 493 and App., note [54]
excretory, 492 and App., note [51], 493
irregular, 493
junctional, 493
looped (of Henle), 493 and App., note [54]
straight, 493 and note
zigzag, 493
mesonephric, 520
Schüller's, 514 and note, 516
seminiferous, convoluted, 503
straight, 503
Skene's, 514 and note, 516
uriniferous, 492 and App., note [51], 493
of the Wolffian body, transverse, 520
Tubuli renales (contorti, recti), 503
seminiferi (contorti, recti), 503
Tubus digestorius, 438-445
Tulpius, valve of, 444 and note
Tunica adiposa of the kidney, 479, 481, 484, 485
adventitia (duodeni), 407
pharyngis, 432, 466 and App., note [34]
albuginea corporum cavernosorum, 506, 508
of the kidney, 491, 493
lienis, 450
testis, 503
dartos, 501
fibrosa (renis), 491, 493
mucosa, 406, 407
muscularis, 406, 407, 452
ductus deferentis, 501
intestini ilei, 407
recti, 445
urethræ, 498
uteri, 512, 518, 519
ventriculi, 439
vesicæ (urinariæ), 496-498
propria of the spleen, 450
serosa, 407, 408
vaginalis, 456, 501-503, 523
communis (testis et funiculi sperm.), 501-503, 523
propria testis, 456, 501-503, 523

U.

Umbilical cord, 518, 519, 521, 522
loop of intestine, 451 and note, 521
vesicle, 468, 518
Umbilicus, 481, 488, 523
Uncinate process of the pancreas, 441 and note
Urachus, 496, 497, 520, 533
Ureter, 490-492, 494, 496, 497, 513, 520-522, 532-536
abdominal portion (pars abdominalis), 494
pelvic portion (pars pelvina), 496, 513
rudiment of, 468 (see Erratum, p. 552*g*)
Urethra, female (muliebris), 498, 500, 510, 511, 535
male (virilis), 488, 500, 505-508, 533
membranous or muscular portion (pars membranacea), 498, 504-506, 531, 534
penile or spongy portion (pars cavernosa), 504, 506, 508
prostatic portion (pars prostatica), 498, 504-506
*Urethral ring, 498 and App., note [62], 506
Urinary organs, 489-498
Urogenital organs, 489-524
sinus, 520, 524
Uterus, 500, 510-513, 520, 521, 535, 537
gravidus, 518
masculinus, 498, 500, 504-506, 520
Utricle, prostatic, 498, 500, 504-506, 520
Utriculus prostaticus, 498, 500, 504-506, 520
Uvula of the bladder (uvula vesicæ), 498, 504
of the palate (uvula palatina), 416, 417, 435

V.

Vagina, 500, 510, 511, 516, 520, 521, 531, 534
anterior wall (paries anterior), 511, 516
posterior wall (paries posterior), 511, 516
Vaginal process of the peritoneum, 455, 522, 523
Vallecula epiglottica, 419, 461
Vallum, circular, of circumvallate papilla, 423
Valsalva, sinuses of, App., note [38]
Valve or valves:
aortic, 482
of Bauhin, 444 and note
of the cystic duct, spiral, 449
Eustachian, 482
Houston's, App., notes [11] and [109], and see also "Fold of the rectum, transverse"
ileocæcal, 444 and note
ileocolic, 444 and note
of Kerkring, 440, 442
mitral, 471, 482
pyloric, 438 and App., note [8]
semilunar, 482
spiral, of the cystic duct, 449
tricuspid, 471
of Tulpius, 444 and note
of the vermiform appendix, 444
Valvula *vel* valvulæ:
bicuspidalis, 471, 482
coli, 444
conniventes, 440, 442
processus vermiformis, 444
pylori, 438
semilunares aortæ, 482
spiralis [Heisteri], 449
tricuspidalis, 471
venæ cavæ [Eustachii], 482
Vas aberrans (of epididymis), inferior, 502 and App., note [71], 503, 520
superior, 502 and App., note [71], 503
afferens (glomeruli renis), 493
deferens, 494, 495, 500-504, 520, 522, 523, 533, 536
efferens (glomeruli renis), 493
Vasa aberrantia hepatis, 446-448
recta spuria, 493 and App., note [56]
vera, App., note [56]
Vater, diverticulum of, 440 and note, 442
Vein or veins:
azygos (right, or large), 471
capsular, 492
central, of the liver, 448
of the clitoris, dorsal, 531
of the corpus cavernosum, 532
dorsal, of the clitoris, 531
of the penis, 508, 531, 532
epigastric (deep or inferior), 533
facial, 424, note
anterior, 424, note
common, 424, note
posterior, 424, note

Vein or veins:
    hepatic, 446, 447, 494
    hypogastric, App., note [107]
    iliac, common, 533
        external, 533
        internal, 533 and App., note [107]
    interlobular of the kidney, 493
        of the liver, 448
    intralobular, of the liver, 448
    of the kidney, interlobular, 493
        radiate, 493
        stellate, 493
    of the liver, central, 448
        interlobular, 448
        intralobular, 448
        peripheral, 448
        sublobular, 448
    mesenteric, inferior, 454
        superior, 479, 495
    obturator, 532
    ovarian, 511
    of the penis, dorsal, 508, 531, 532
    peripheral, of the liver, 448
    portal, 446, 480
    pudic, internal, 532 and App., note [108]
    pulmonary, 464, 465, 470, 471
    radiate (of the kidney), 493
    renal, 490, 494
    spermatic, 494, 522
    splenic, 441
    stellate (of the kidney), 493
    suprarenal, 492
    temporomaxillary, 424, note
    umbilical, 519, 521, 522
    uterine, 519
    uteroplacental, 519
Velum palatinum (velum pendulum palati), 411, 416, 434-436
Vena *vel* venæ:
    arciformes (renis), 493
    azygos, 471
    cava inferior, 446, 471, 479-481, 494, 495, 521
        superior, 471, 477, 478, 482, 486
    centralis (hepatis), 448
    dorsalis clitoridis, 531
        penis, 508, 531, 532
    epigastricæ inferiores, 533
    hepatica, 446, 494
    hypogastrica, 537
    iliaca communis, 533
        externa, 533
    interlobulares hepatis, 448
        renis, 493
    lienalis, 441
    mesenterica inferior, 454
        superior, 479, 495
    obturatoria, 533
    ovarica, 511
    portæ, 446, 480
    profundæ penis, 532
† pudenda interna, 532
    pulmonales, 464, 465, 470, 471
    renalis, 490, 494
    spermatica interna, 494
    stellatæ (renis), 493
    sublobularis (hepatis), 492
    suprarenalis, 492
    testicularis, 522
    thyreoideæ inferiores, 411
    umbilicales, 519, 521, 522
† uteroplacentares, 519
Venous arch, jugular, 410 and note
Venous arches of kidney, 493
Ventricle of the larynx, 461
    left, 471, 484
    right, 471, 484
Ventriculus, 438, 439, 451, 452, 456, 472, 476-478, 480, 482-484, 486, 487, 495, 514
    paries anterior, 438, 472
        posterior, 478, 483
    pars cardiaca, 438
        pylorica, 438-440, 477, 482
Ventriculus cordis dexter, 471, 484
        sinister, 471, 484
    laryngis [Morgagnii], 461
Venulæ rectæ (renis), 493
Vertex vesicæ, 494, 496, 534, 536, 537
Verumontanum, 498 and App., note [63], 505, 506
Vesica fellea, 446, 449, 453, 476-478, 482, 485, 486, 495, 522
    urinaria, 456, 486, 487, 496-498, 500, 504, 510, 511, 513, 520-523, 533-537
Vesicle, prostatic, 504-506, 520, and App. note [64]; see also "Utricle, prostatic"
    seminal, 496, 497, 500, 504-506, 520, 532, 534
    umbilical, 468, 518
Vesicula seminalis, 496, 497, 500, 504-506, 520, 532, 534
    umbilicalis, 468
Vessel, afferent, of renal glomerulus, 493
    efferent, of renal glomerulus, 493
Vessels, aberrant, of the liver, 446-448, and App., notes [14] and [17]
Vestibule, bulb of the, 515 and App., note [91], 535
    of the larynx, 411, 461
    of the mouth, 411, 414-417
    of the omental sac, 452, 479, 495, and App., note [44]
    of the vagina, 498, 500, 510, 514 and App., note [89], 515, 520, 524, 529
    of the vulva, 498, 500, 510, 514, and App., note [89], 515, 520, 524, 529
Vestibulum bursæ omentalis, 452, 479, 495
    laryngis, 411, 461
    oris, 411, 414-417
    vaginæ, 498, 500, 510, 514, 515, 520, 524, 529
Vestige of the Müllerian duct, 521; see also "Hydatid of Morgagni"
Villi, chorionic, 519
    fœtal, 519
    intestinal, 407, 432
Viscera, abdominal, projection-outlines of, 486-488
    capitis et colli, 411
    cephalic and cervical, 411
    general considerations, 403-408
    relations of, to body-wall, 408
    thoracic, projection-outlines of, 486-488
Vulva, the, 514

W.

Wall, membranous, of trachea, 459, 461, 465
Walther, duct of, App., note [3]
Wharton's duct, 414, 424, 425, and App., note [3]
Wilson's muscle, App., note [101]
Winslow, foramen of, 478, 479
    pancreas of, 441 and note
Wirsung, duct of, 440-442
Wisdom-teeth, 429, 430
Wolffian body, 468, 520, 521
    duct, 468, 520, 521
Wrisberg, cartilages of, 460

Y.

Yellow spot (of the larynx), App., note [illegible]
Yolk-sac, 468, 518

ERRATUM

In the letterpress of Fig. 797, p. 468, right-hand column, "Rudiment of the *uterus*" is a misprint for "Rudiment of the *ureter*."—Tr.

COUNTWAY LIBRARY
HC 4BWZ P

9d

DATE DUE

AUG 22

DEMCO 38-297